February 19, 2014 Water Supply Forecast Discussion Update

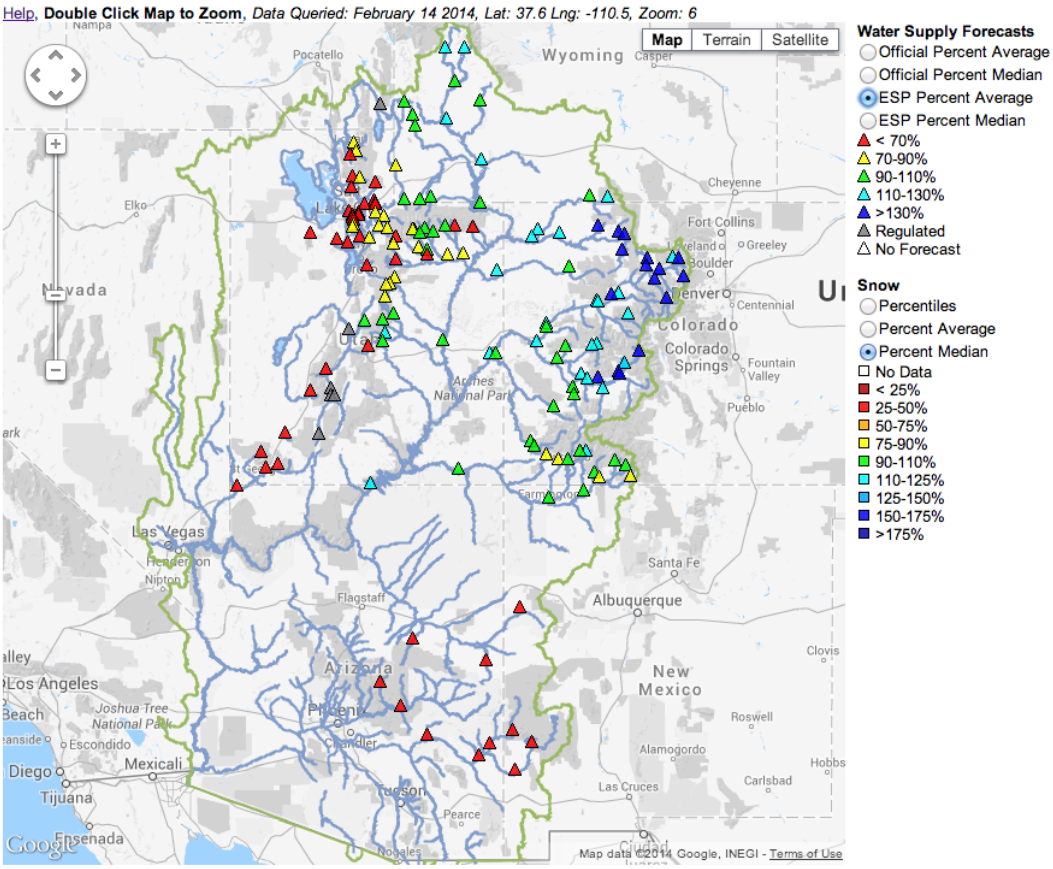
The Colorado Basin River Forecast Center (CBRFC) geographic forecast area includes the Upper Colorado River Basin, Lower Colorado River Basin, and Eastern Great Basin.

Seasonal Water Supply Forecasts:

Summary:
Since the beginning of February, several storms produced significant amounts of snow in the Upper Green River Basin. Some locations received 6 inches of water during the first half of February which is 300-400 percent of average.

The Colorado River Headwaters, northern Great Basin, and upper Gunnison River Basin also experienced a significant increase in snow. Precipitation in these areas ranged from 150 to over 200 percent of average through mid February.

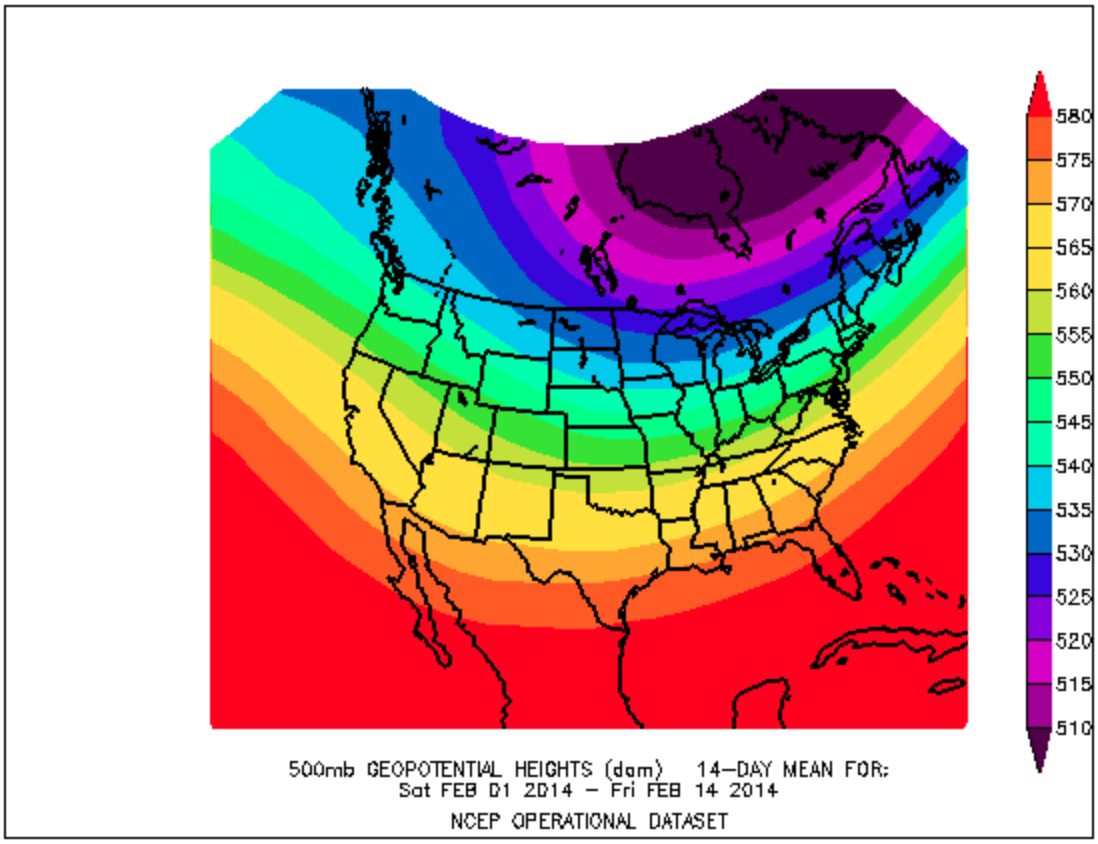
The map below shows percent of average April through July forecast volume based on the CBRFC guidance model, as of February 18th. Significant increases occurred in the areas aforementioned. Model guidance as of mid February indicates April-July volumes in the 120 to 150 percent of average range in the upper Gunnison, Colorado River Headwaters and upper Green Basin. As of mid February the Fontenelle inflow forecast is for 950 KAF (130% of average), Blue Mesa Inflow is 815 KAF (121% of average), and Lake Powell Inflow 7.7 MAF (108% of average).



Water Supply Discussion

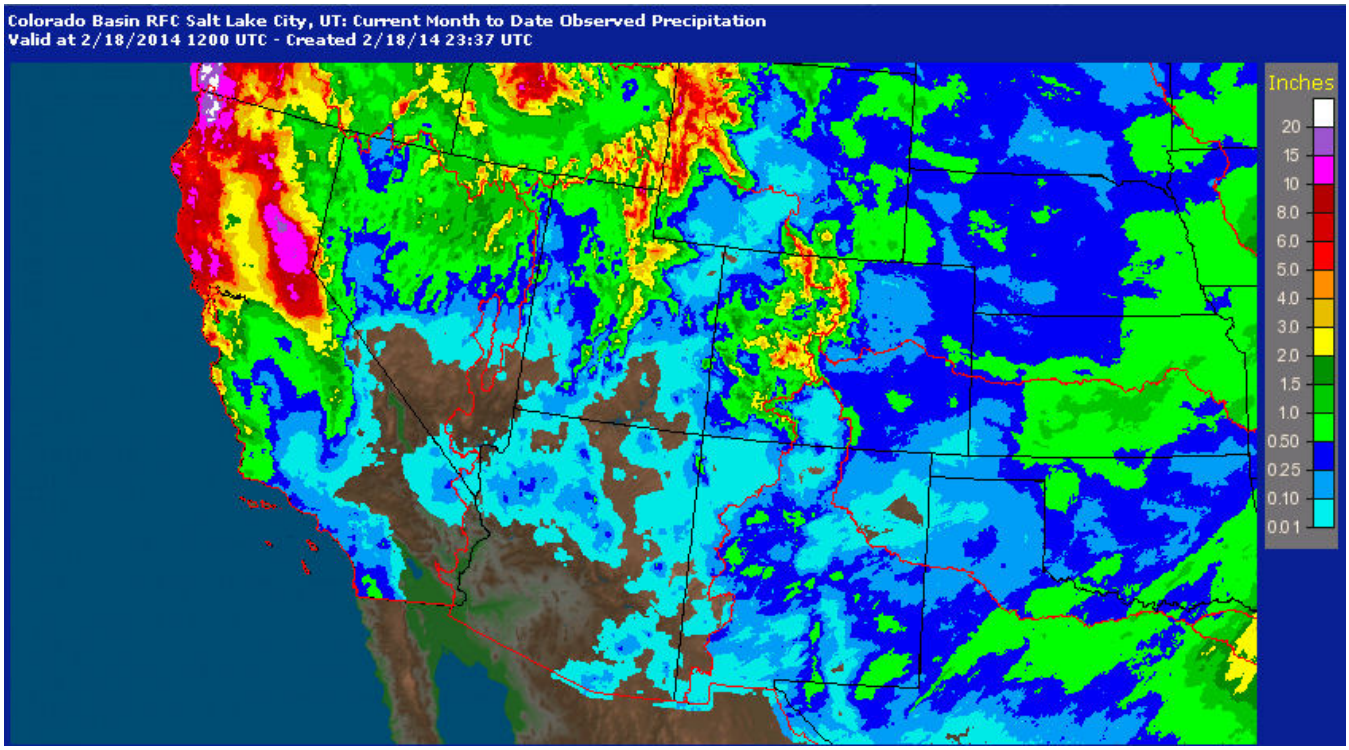
Weather Synopsis:

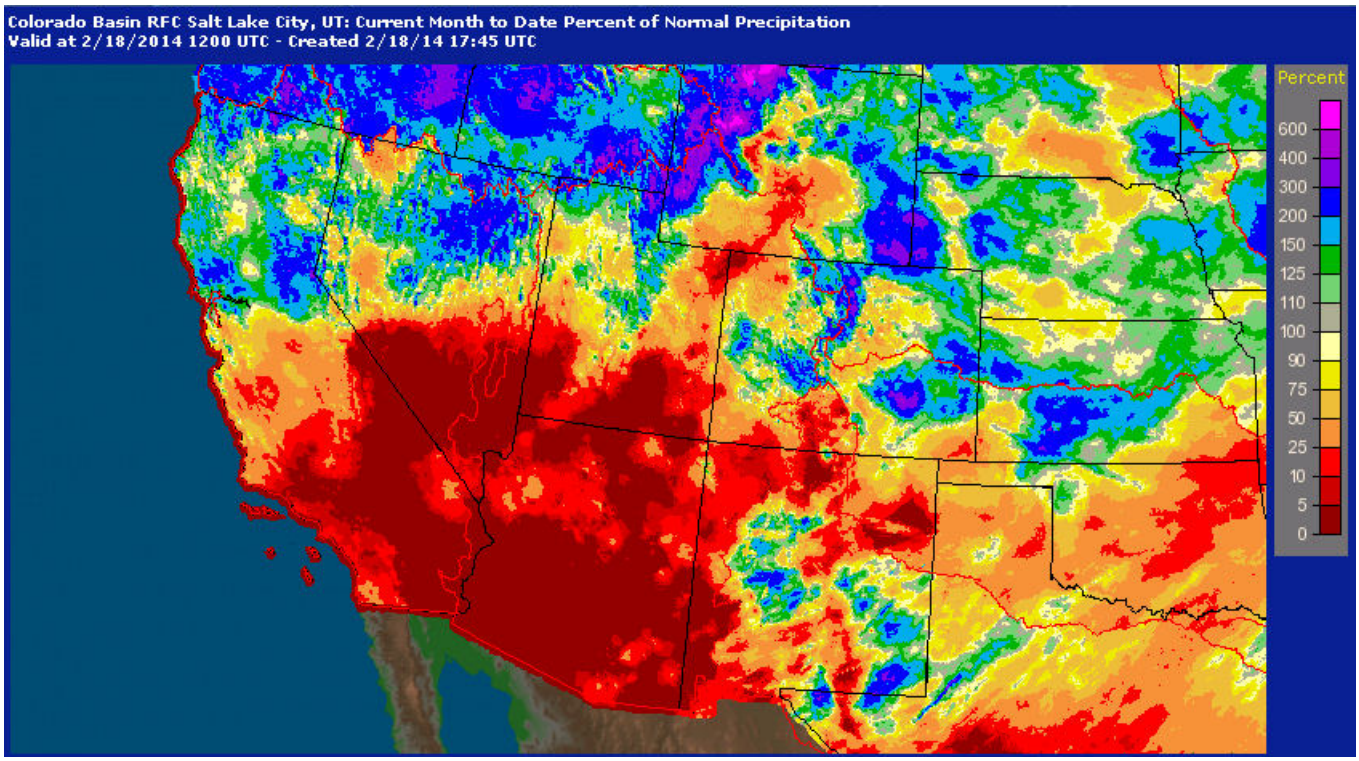
The upper air pattern that developed over the western U.S. during the first half of February was a zonal, west to east, flow that transported moderately warm and very moist air from the Pacific Ocean into the northern half of the CBRFC area. Storm systems within the zonal flow brought significant precipitation. Much above average temperatures also occurred and resulted in some snow melt at low and mid elevations. The Lower Colorado River Basin, San Juan Basin, and southern third of Utah were left out of the flow of moist air. In these areas below average precipitation occurred during the first half of the month.



Mean upper air pattern during the first 2 weeks of February 2014.

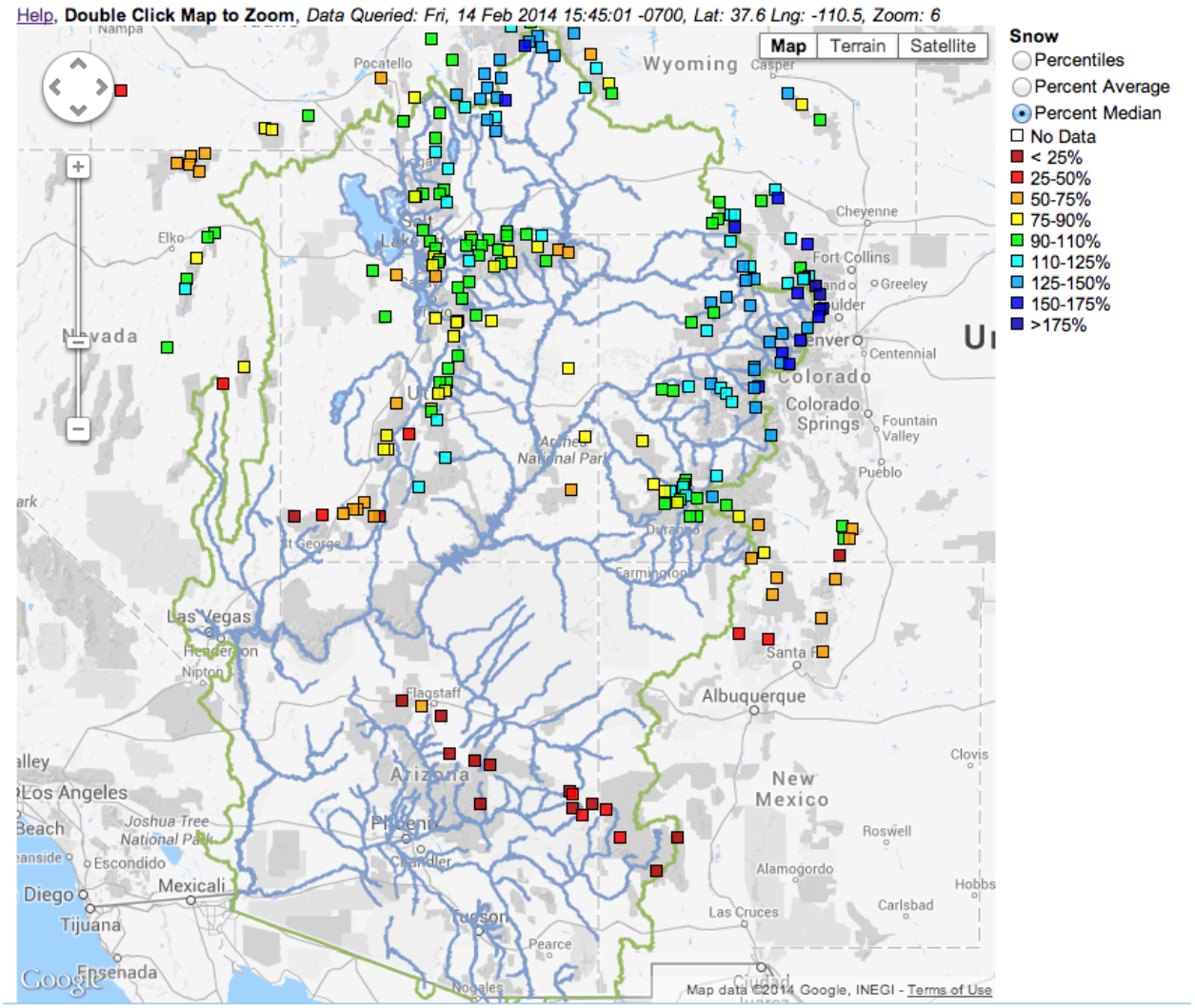
Precipitation:
The first two weeks of February brought significant precipitation to the northern part of the CBRFC area. The plots below depict observed precipitation and the percent of average precipitation from February 1st - February 18th.


Colorado Basin RFC Salt Lake City, UT: Current Month to Date Observed Precipitation
Valid at 2/18/2014 1200 UTC - Created 2/18/14 23:37 UTC
Inches
20
15
10
8.0
6.0
5.0
4.0
3.0
2.0
1.5
1.0
0.50
0.25
0.10
0.01

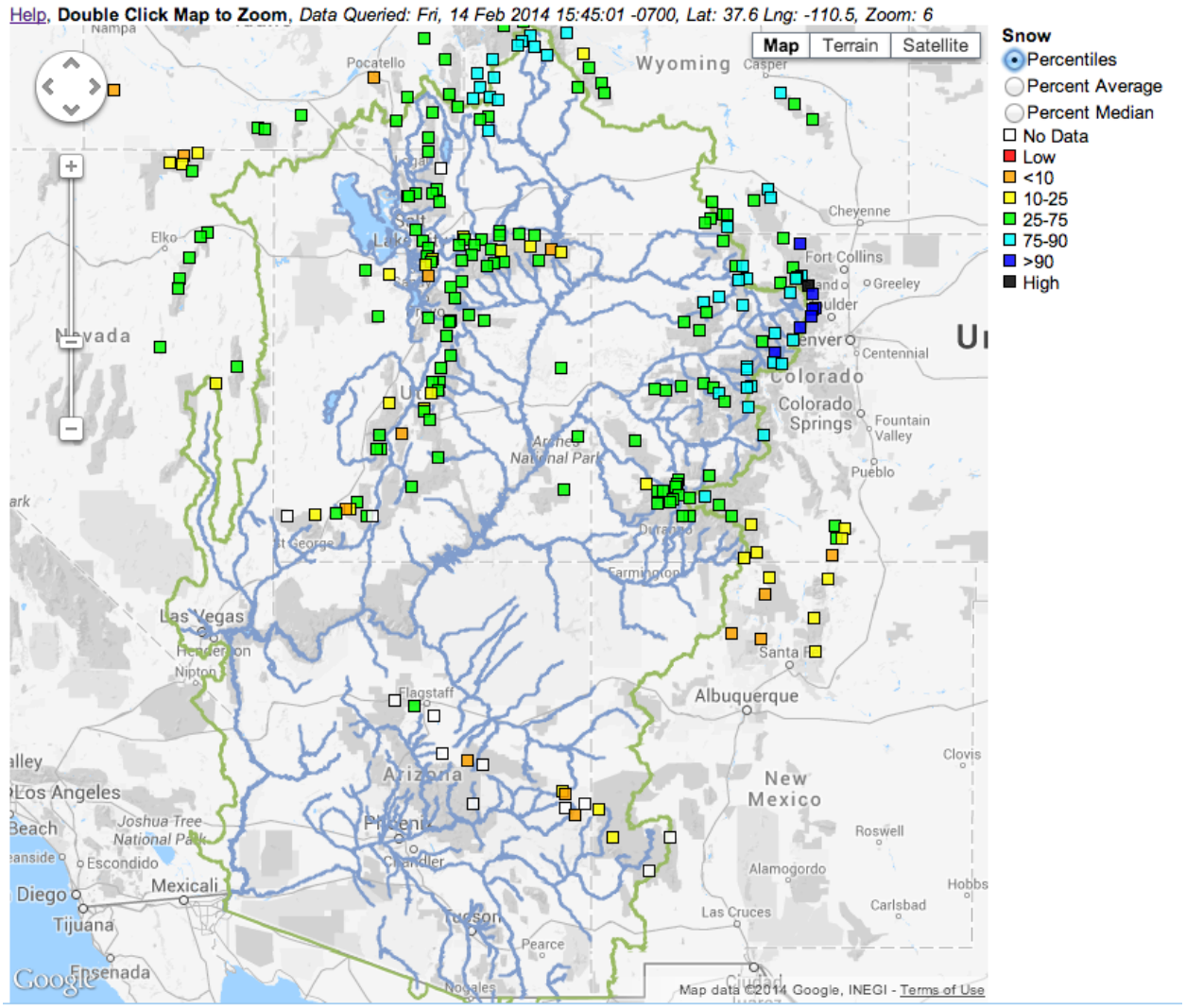

Colorado Basin RFC Salt Lake City, UT: Current Month to Date Percent of Normal Precipitation
Valid at 2/18/2014 1200 UTC - Created 2/18/14 17:45 UTC
Percent
600
400
300
200
150
125
110
100
90
75
50
25
10
5
0

Snowpack:
Snow conditions as of mid February improved significantly in the northern Great Basin and in the Upper Colorado, with record amounts locally in the headwaters of the Colorado.

The maps below show conditions at SNOTEL sites across the CBRFC area as of February 14, 2014. For more details and daily updates, please refer here.



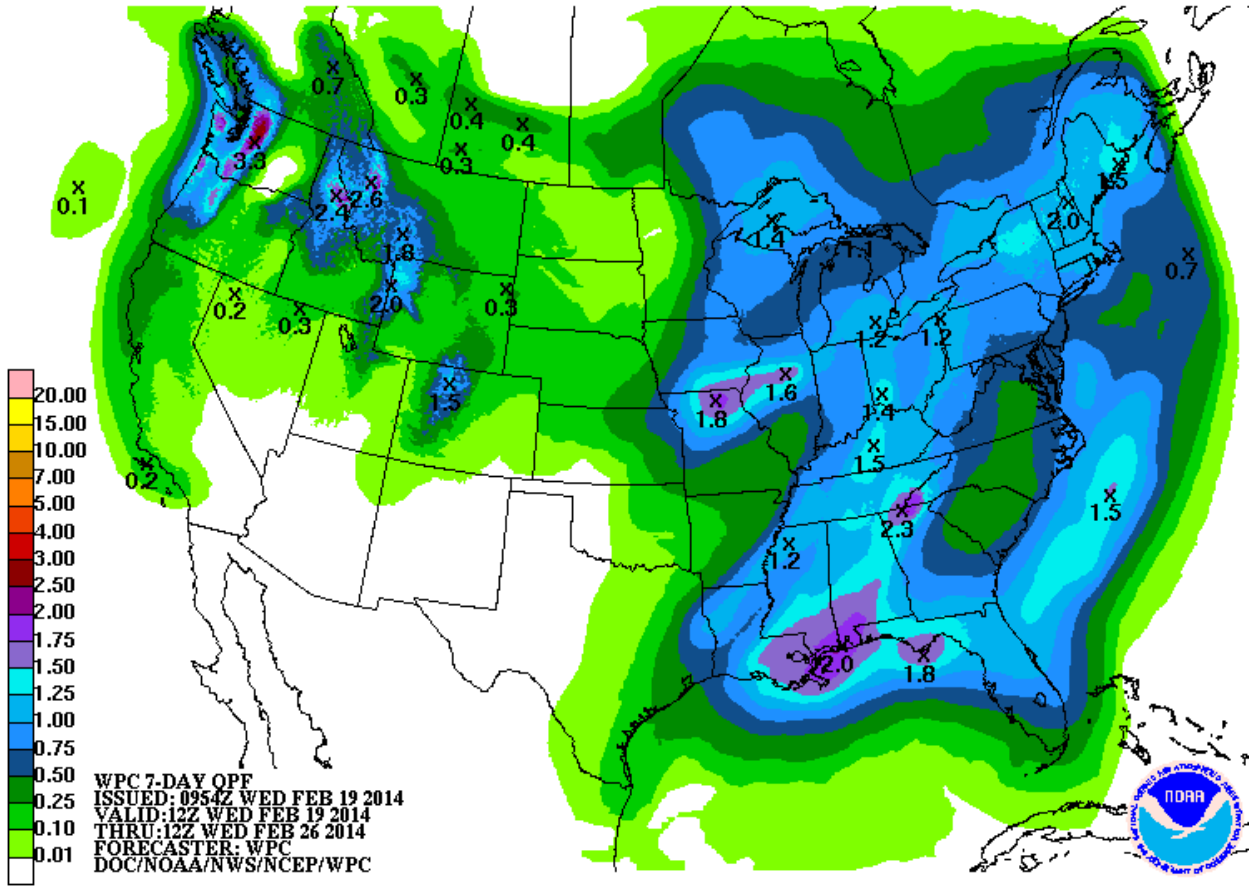
Percent Median Snow condition as of February 14, 2014



Percentiles snow conditions as of February 14, 2014. Sites ranked based on historical record:

Short Term Weather Outlook:

The weather pattern for the remainder of February is expected to be progressive with periods of dry weather and above average temperatures intermixed with some storminess. The precipitation pattern is expected to mirror what occurred the first half of February, favoring the northern half of the CBRFC area with less amounts in the Lower Colorado River Basin. Forecast precipitation amounts, while less confident further into the future, are expected to be lighter than the first half of February and are depicted in the image below.



Forecast precipitation amounts for February 19 through February 26, 2014

Climate Outlook:
As for Climate forecast information, not much has changed since the beginning of the month, with continued neutral El Nino Southern Oscillation (ENSO) condition through 2014. The Climate Prediction Center indicates higher chances of below average precipitation in the southern portions of the Colorado Basin for February through April, and equal chances for above or below average precipitation throughout the rest of the CBRFC forecast area. There is a higher chance of above normal temperatures throughout the basin for the same time period.

Conclusion:
The wet pattern over the northern portions of the CBRFC's forecast area and continued dry pattern south has further spread the predicted water supply conditions, with above normal conditions in the Upper Colorado above lake Powell, upper Green Basin, and upper Gunnison Basin, and below normal in the Great Basin (although better than predicted 2 weeks ago) and well below normal in the Lower Colorado basin.

Changing snow conditions over the next two months can drastically change the forecasts as we move into late winter and spring.