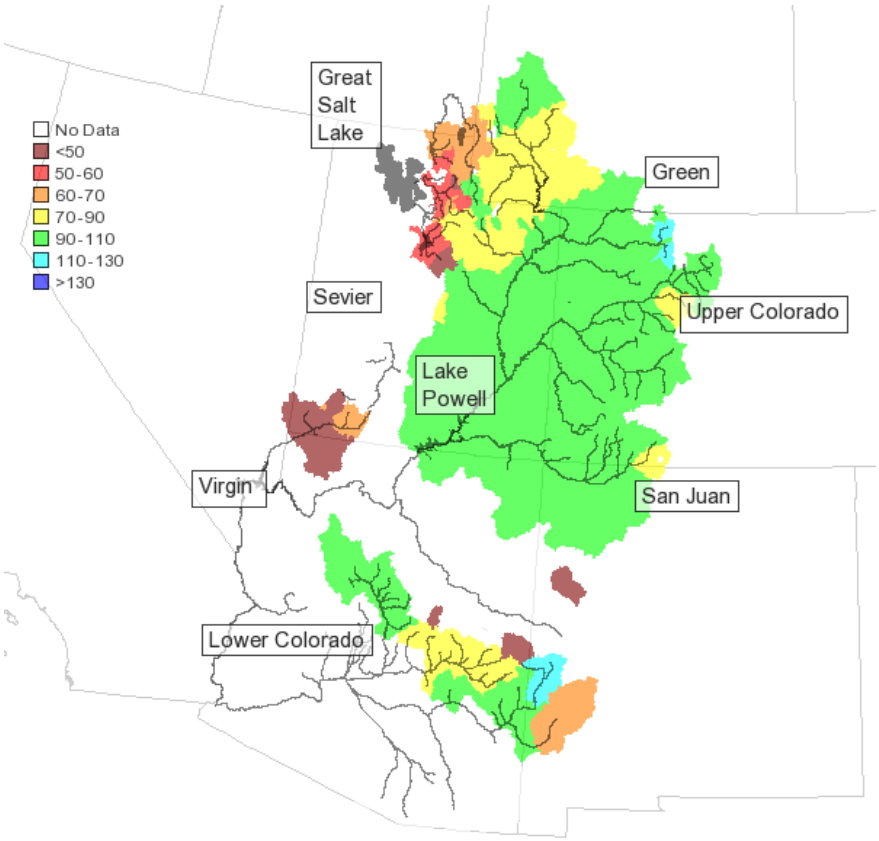
January 1, 2014 Water Supply Forecast Discussion

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:

Quick Summary:
Above average modeled soil moisture conditions and a near average snowpack has resulted in most water supply forecasts in the 90 to 110 percent of average range over much of the upper Colorado River Basin including the Upper Green, the Yampa, Colorado, Gunnison, and San Juan basins. Meanwhile, some of the early season storms that brought the near average snowpack to the Upper Colorado have bypassed areas to the west including the Great and Duchesne Basins. In addition to less than average snow pack, some of these areas had below average soil moisture going into the water year. Water supply runoff volumes forecasts are generally less than 80% of average with several sites forecast for less than 50% of average.

In the Lower Colorado River Basin above median January-May volumes are forecast for the upper Gila with near or below median forecasts in the Verde and Salt River Basin.



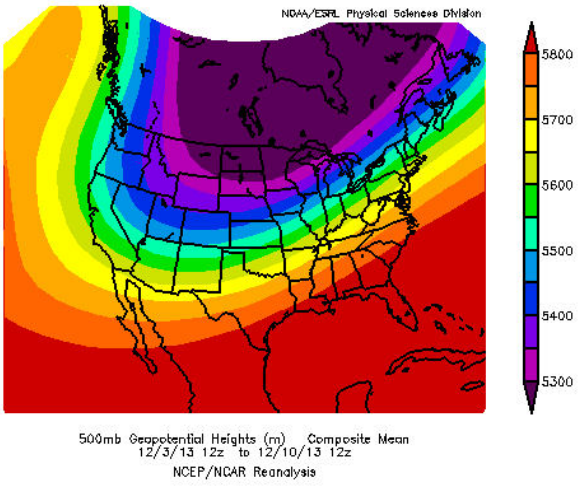
Click here for specific site water supply forecasts

Water Supply Discussion

Weather Synopsis:

A very active southwest monsoon pattern was in effect during late summer and early fall of 2013. September was a very wet month with much above average precipitation area wide. This generated favorable soil moisture conditions over much of the Colorado River Basin, and parts of the Salt and Gila River Basins entering the winter season.

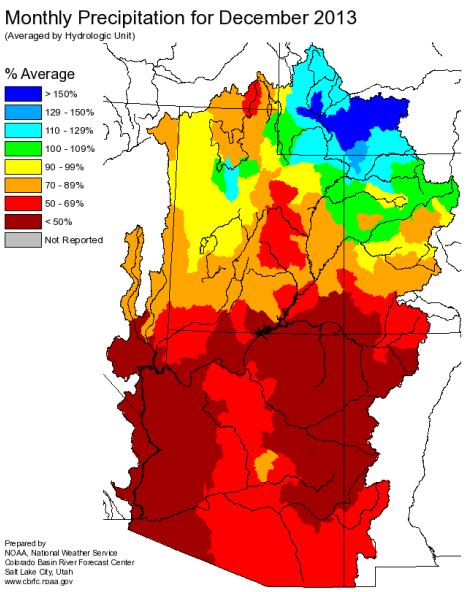
A series of cold early season storms moved through the CBRFC region in November and December. The primary path of the storms was over the southwestern U.S. with the bulk of the precipitation missing the Great Basin. Near average snowpack resulted in much of the Upper Colorado River Basin (except the Duchesne) while much below average snowpack was common across the Great Basin at the start of the new year.

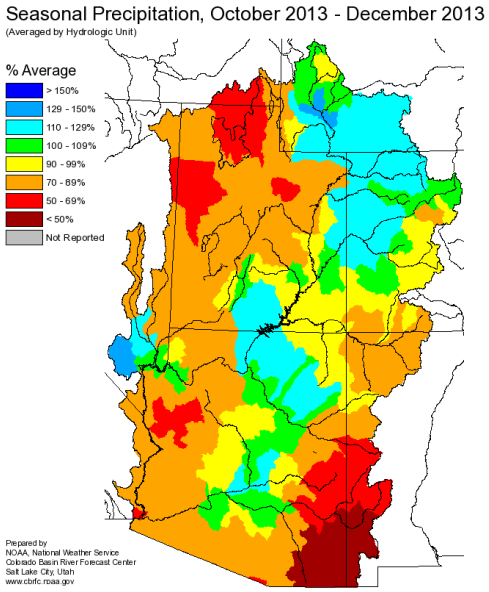


Mean upper air pattern during early December 2013.

Precipitation and Temperatures:

December precipitation was well below average over all of the lower Colorado Basin. The Upper Colorado Basin was mixed with wet conditions in the Wyoming portions of the basin, near average in the Colorado Headwaters and below average in the San Juan Basin, and Central Utah areas. The Eastern Great basin was slightly below average.



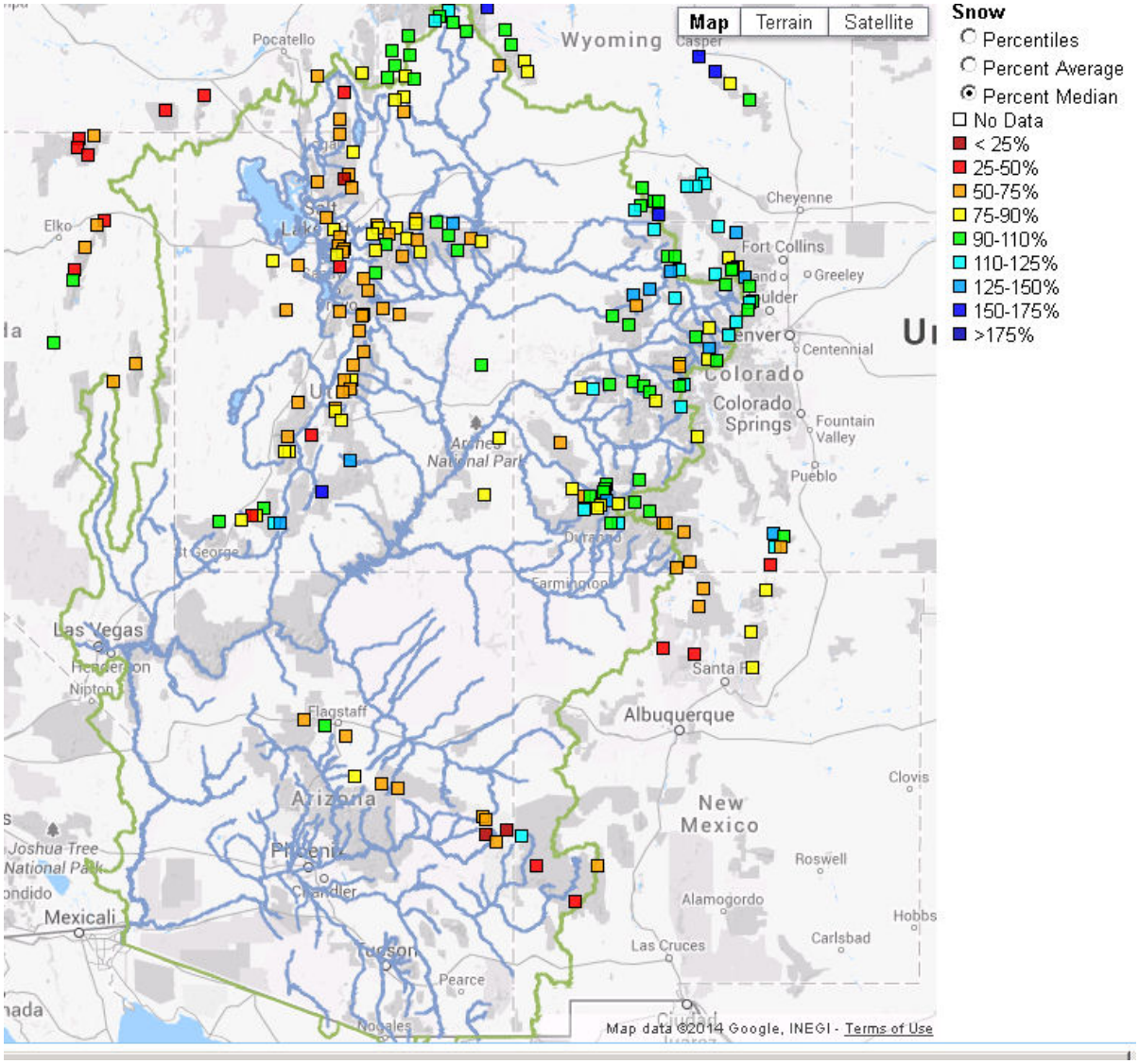


Temperature for October through December were near or below average.

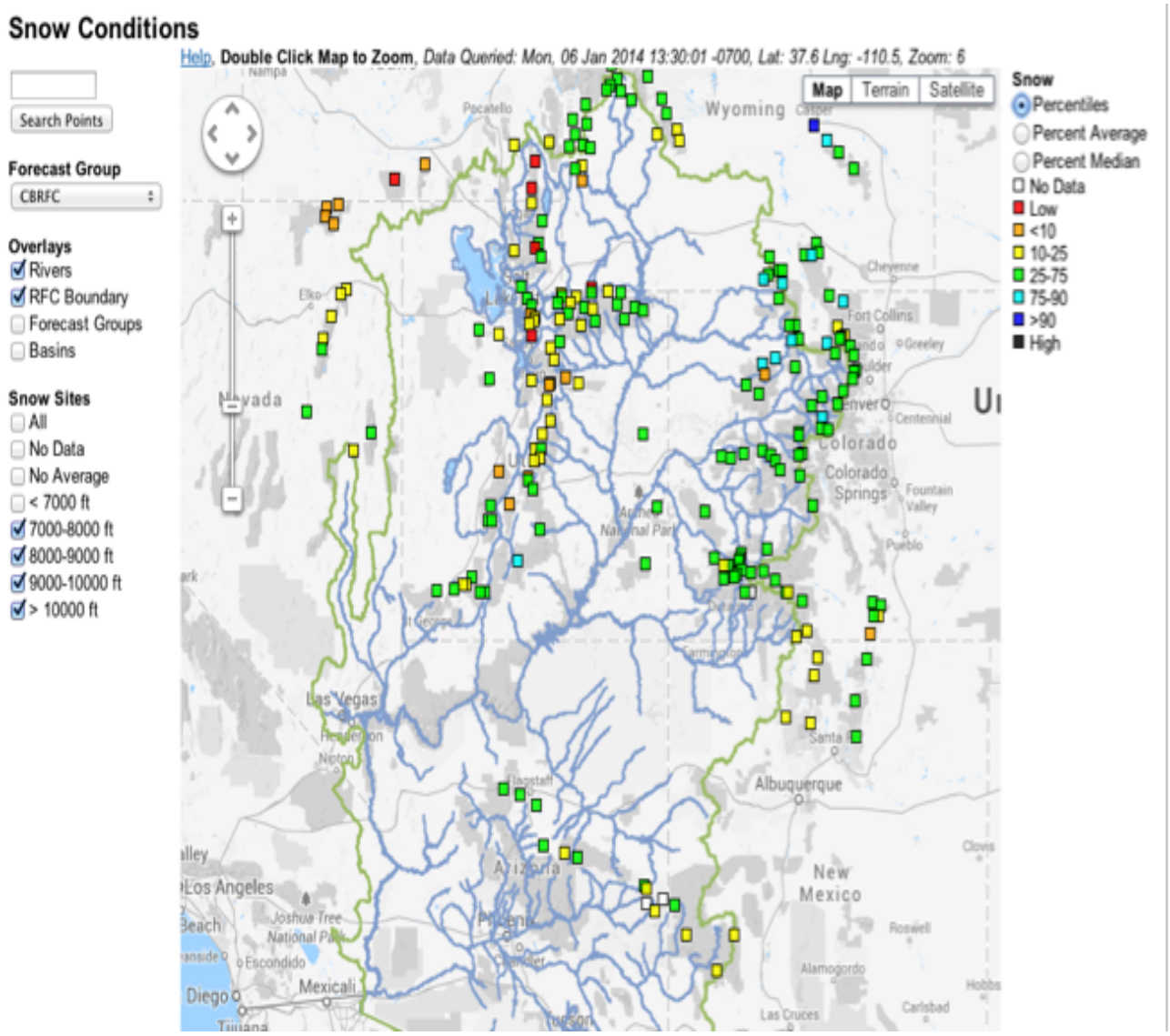
Snowpack:
At the beginning of January, snow conditions were mostly near the historical median across the Upper Colorado River Basin. Much below median conditions were widespread across the Great Basin, extending into western sections of the Duchesne River Basin and lower elevations in the Upper Green Basin. The Verde River Basin was near median with below median conditions in the upper Salt and Gila Basins.

The maps below show conditions of snotel sites across the CBRFC area as of January 6, 2014. For more details and daily updates, please refer here.

Percent Median Snow condition as of January 6, 2014

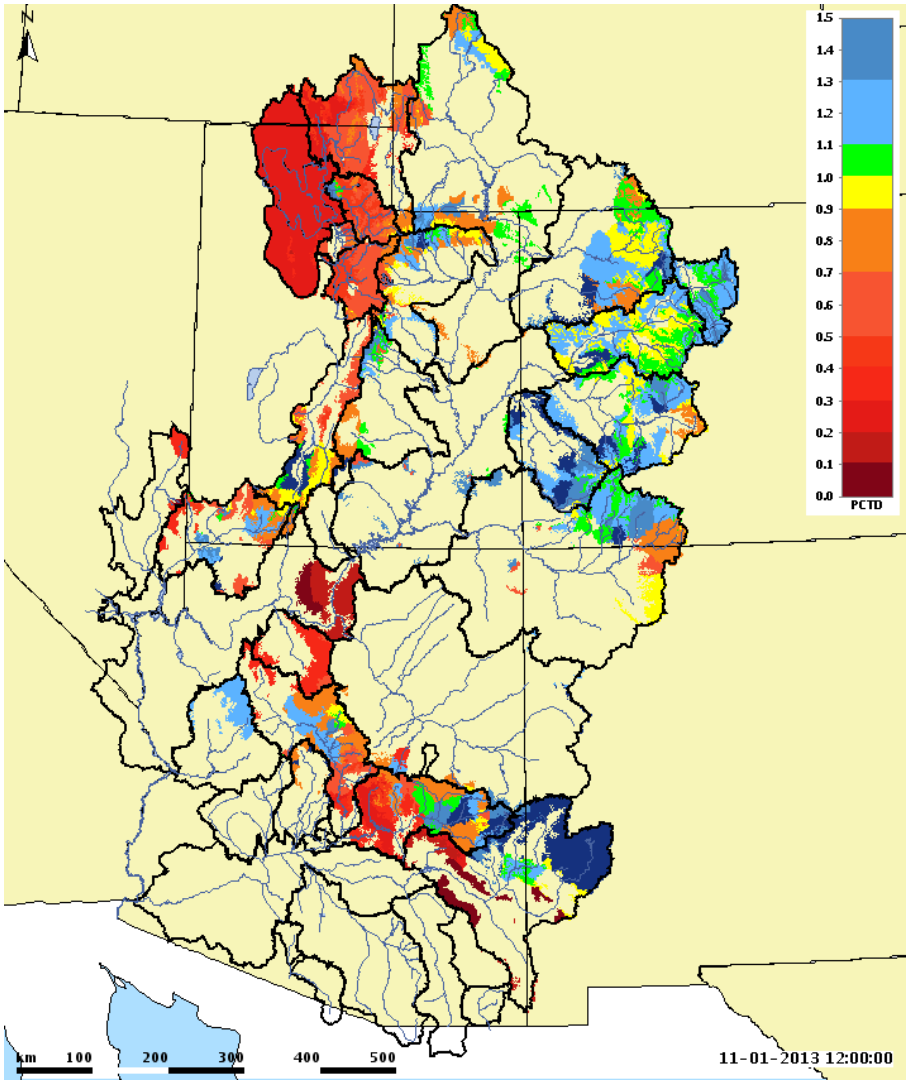


Percentiles snow conditions as of January 6, 2014. Sites ranked based on historical record:



Soil Moisture:
Soil moisture conditions in the higher elevation headwater areas are important entering the winter, prior to snowfall, as it influences the efficiency of the snowmelt runoff the following spring. Modeled soil moisture conditions
as of November 1st were above average over much of the Upper Colorado Basin, and parts of the upper Salt and upper ila Basins. Elsewhere conditions were below average.

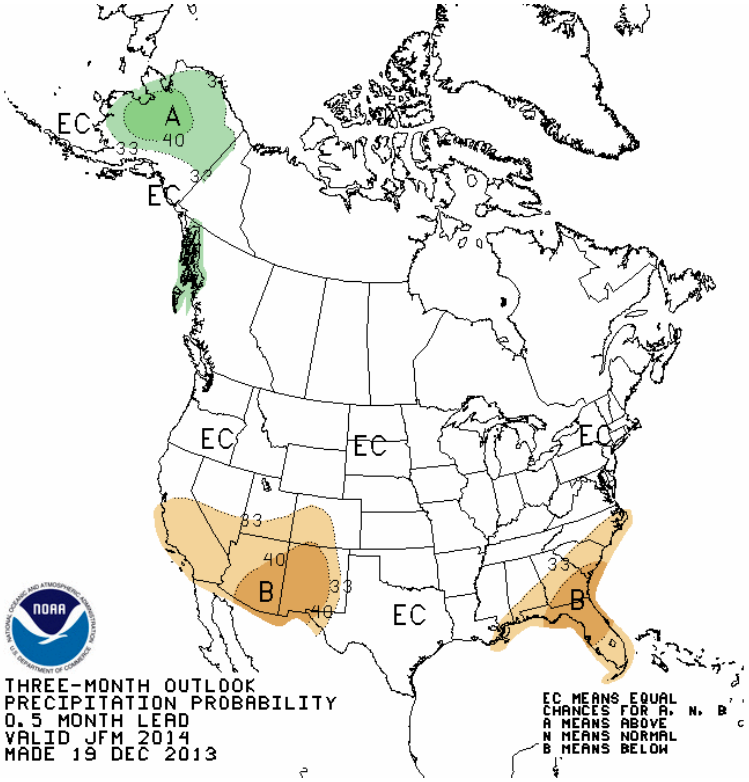
In the map below areas in blue are above the historical model average soil moisture while those in the red and orange are below average.



Modeled soil moisture as of November 1st 2013

Streamflow:
Above average streamflow was observed in late fall in the Colorado River headwaters above Kremmling, Yampa River Basin, and Gila River Basin.. Near or slightly above average streamflow was observed in parts of the Gunnison and San Juan River Basins. In the lower Green River Basin, Duchesne, and across the Great Basin below to much below streamflow was observed, indicative of the much drier conditions in those areas.

Climate Outlook:
The El Nino Southern Oscillation (ENSO) condition is currently neutral and expected to continue as neutral through 2014. The Climate Prediction Center indicates higher chances of below average precipitation in the southern portions of the Colorado Basin for the first half of 2014, and equal chances for above or below average precipitation throughout the rest of the CBRFC forecast area.



Conclusion:
Two vastly different scenarios exist in the CBRFC forecast area. Favorable soil moisture and snow conditions in the upper Colorado River Basin resulted in near average water supply forecasts. Over much of the Great Basin, the western Duchesne Basin and the Virgin River Basin soil moisture is less favorable and snow conditions are much below average. April-July runoff volumes less than 80% of average, and in some cases less than 50% of average are forecast.

It is still early in the snow accumulation season. Snow conditions over the next three months can drastically change the forecasts as we move further into the winter and spring.

End Of Month Reservoir Content Tables

- Green River Basin
- Upper Colorado River Basin
- San Juan River Basin
- Great Salt Lake Basin
- Sevier Basin
- Virgin River Basin

Basin Conditions and Summary Graphics

- Green River Basin
- Upper Colorado River Basin
- San Juan River Basin
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