May 18, 2016 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:

Water Supply Forecast Summary (Mid May Update):

Mid May April-July model runoff forecasts changed dramatically in some areas from the first of the month. Forecasts in parts of the Green River Basin of Wyoming and Yampa River Basin had some large increases due to much above average precipitation the first half of the month. An extreme precipitation event occurred from around the 6th to 10th with generally over 2 inches of precipitation received in parts of the Yampa River Basin with amounts over 4 inches in parts of the Green River Basin of Wyoming.

Above average precipitation was widespread throughout much of the Colorado River Basin above Lake Powell due to a series of slow moving storm systems the first part of May. Increases in April-July runoff model guidance was also noted in much of the Duchesne River Basin and along the Colorado River mainstem and Colorado River headwaters. Increases also occurred but to a lesser extent throughout the Gunnison, Dolores, and San Juan River Basins.

Precipitation was near to above average the first half of May in much of the Great Basin. Model guidance increased the runoff outlook in some of the headwaters of the Bear, Weber, and Provo River Basins with many other forecast points downstream or at lower elevations remaining close to May 1st forecasts.

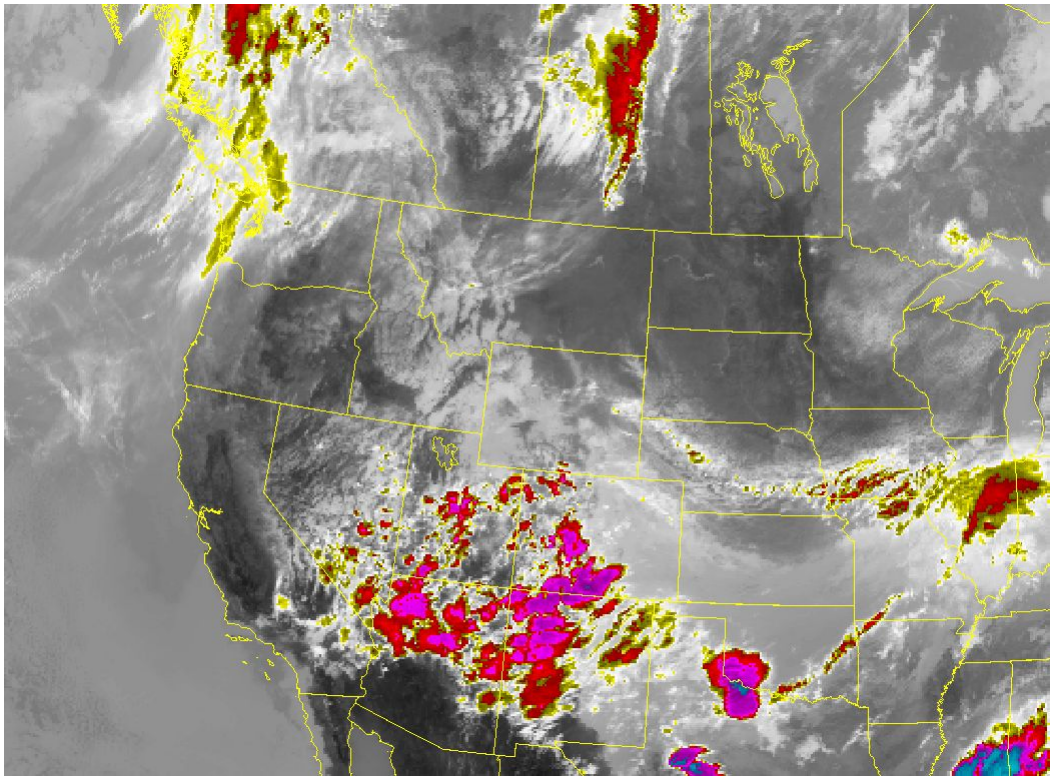
Mid May forecasts for some of the major upper Colorado River Basin reservoirs include Fontenelle increasing from 73 percent to 90 percent of average, Flaming Gorge increasing from 79 percent to 100 percent of average, Blue Mesa increasing from 78 percent to 83 percent of average, McPhee increasing from 73 percent to 83 percent of average, and Navajo remaining at 71 percent of average. The Lake Powell inflow forecast increased from 77 percent of average to 84 percent of average and is now forecast at 6.0 million acre-feet.

Click here for the latest water supply model guidance

Water Supply Discussion

Weather Synopsis:

A series of storm systems moved slowly through the area during the first half of May. These closed low pressure systems brought widespread precipitation particularly to northern areas including the Yampa, Green River Basin of Wyoming, and parts of the Duchesne River Basin. The satellite image below shows a low pressure system centered over southern Nevada resulting in widespread precipitation over the southern half of the forecast area as of May 17.

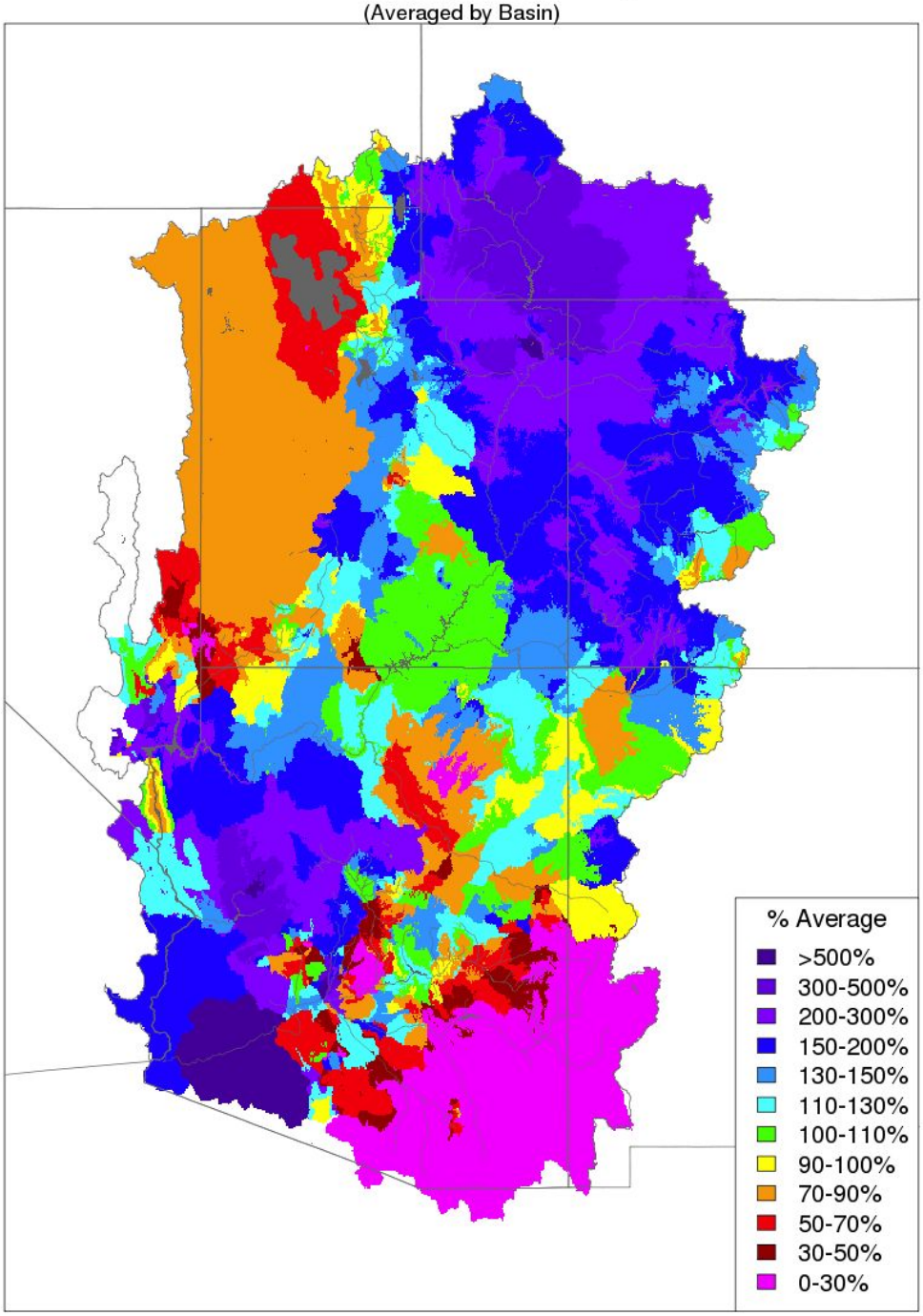


Satellite Image for May 17 2016

Precipitation and Temperatures:
The image below shows the focus of the heaviest precipitation with above average precipitation over most of the Colorado River Basin above Lake Powell. Heaviest precipitation with respect to average is evident over the Yampa River Basin and Green River Basin extending into the Uinta Range in northeast Utah.

Month to Date Precipitation - May 17 2016

(Averaged by Basin)



Prepared by NOAA, Colorado Basin River Forecast Center
Salt Lake City, Utah, www.cbrfc.noaa.gov

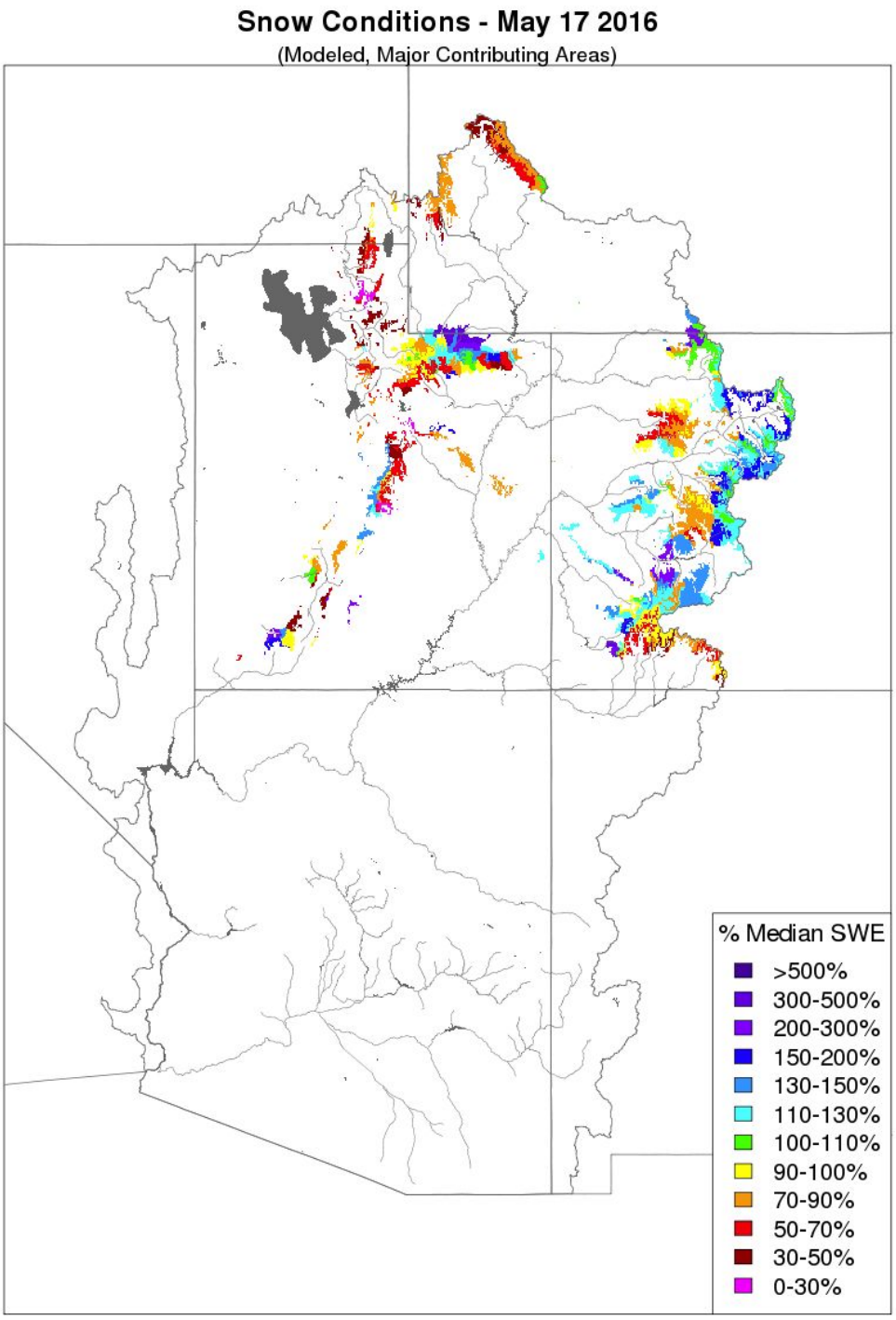
May 1st - 17th percent of average precipitation

Snowpack:

Additional snow was received at highest elevations during the month, however amounts were not significant with accumulation limited to areas generally above 10,000 feet as the storm systems had fairly mild temperatures. The primary impact was a delay in melt at some of the highest elevations. This acted to bring some of those areas represented in the image below to indicate above normal (median) snow for mid May. While these areas may be above normal for this time of year, most fell short of reaching the average seasonal peak snow resulting in below average April-July runoff forecasts.

For the latest snow conditions click here

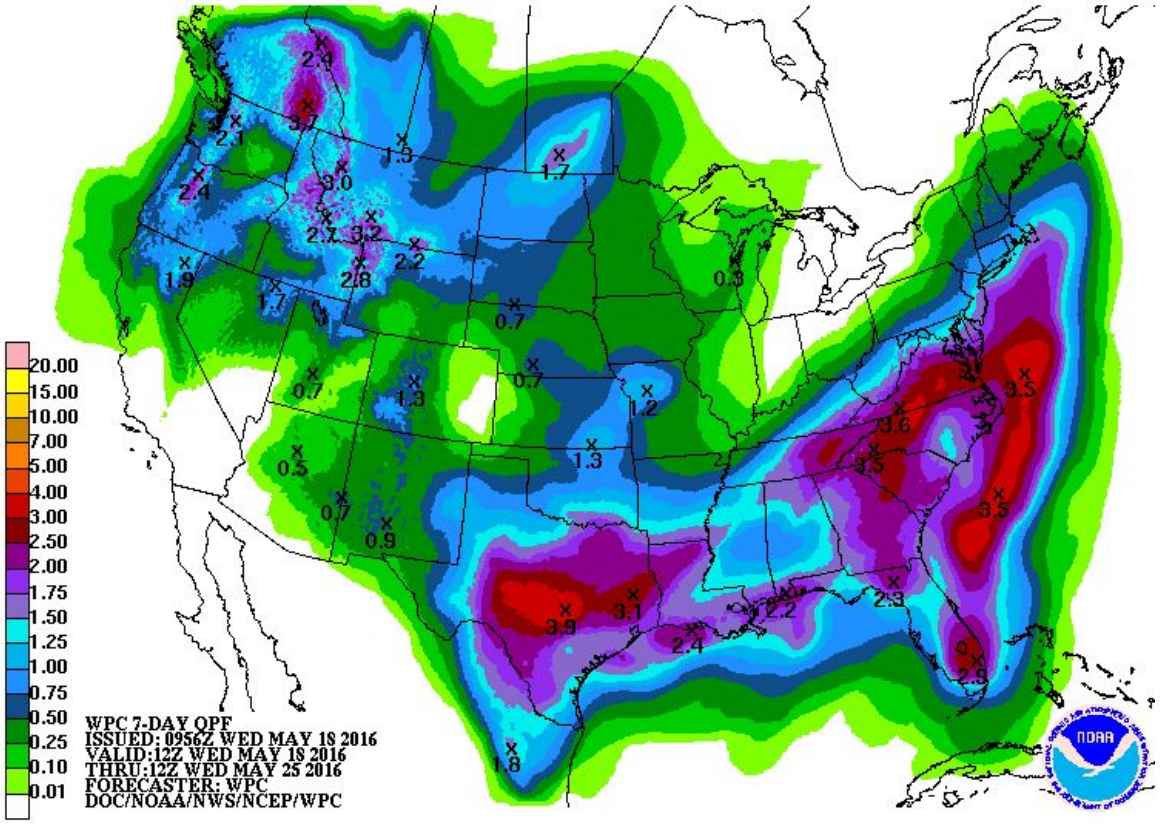
The snow as represented by the CBRFC hydrologic model is indicated below.



Snow conditions as seen by the hydrologic model on May 17, 2016
Trimmed to show those areas with the greatest contribution to seasonal runoff volumes.

Weather Outlook:

A mix of warm, dry, windy conditions followed by cooler and wetter conditions to close out the month of May are anticipated over the Colorado River and Great Basins. Temperatures should rebound by the 3rd weekend of the month increasing snow melt runoff. Additional rainfall is possible during the last 7-10 days of the month, most likely in the form of scattered showers.



Precipitation outlook for May 18-May 25 from the Weather Prediction Center.

Conclusion:

May has generally been beneficial to the water supply forecasts particularly in parts of the Green River Basin of Wyoming, Yampa River Basin, and in the Colorado River headwaters. Slow moving storm systems have brought widespread above average precipitation during the first half of the month. Although the April-July runoff outlook improved in many areas since early May, many forecasts call for below average runoff volumes. This is due to the fact snowpack fell short of reaching the average seasonal peak levels in many areas.

Lowest forecasts with respect to average are in the Great Basin and tributaries of the Green and Colorado Rivers in central Utah. Many of these are lower elevation basins where snow melted out early and never recovered. Highest forecasts with respect to average exist in the Yampa River Basin where above average volumes are anticipated. Near or slightly below average runoff volumes are anticipated in the Colorado River headwaters, parts of the Gunnison River Basin, and in some eastern basins in the Duchesne River Basin due to recent heavy precipitation.