

## APRIL 2007 DROUGHT UPDATE

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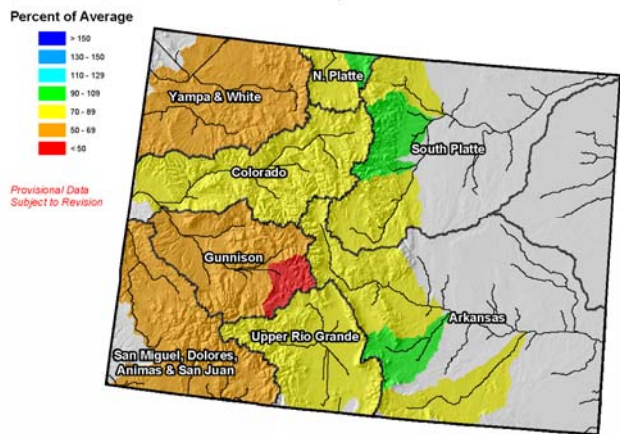
### Executive Summary

There is currently a stark difference in Colorado's climate east and west of the continental divide. Eastern basins have benefited from precipitation and cooler temperatures in April as opposed to the western side of the state. Due to warmer temperatures and lack of moisture, many of the basins are experiencing early melting and run off. During the summer months, HDR is forecasting the temperature will be above average and precipitation below average. The monsoon season will not bring as much precipitation as in 2006 which will have an impact for the western basins.

- A transition from El Nino conditions to La Nina conditions is possible within the next three months. La Nina would bring a hot and dry climate for Colorado and will impact water usage as the state heads into the heavy demand season. May is the important month to watch to determine how big of an impact La Nina will have.
- By certain definitions, the drought of the early 2000's is over but according to the US Drought Monitor, parts of the state, most notably, the West and Southwest regions of the state show they are trending back into a drought.
- Statewide, reservoir storage is at 103% of average and at 105% of last year. However, these numbers can be misleading due to the fact that there is early melting and runoff from warmer temperatures.
- Statewide snow pack is 75% of average but has declined overall statewide. The eastern part of the state is recording near average snow pack. The biggest decrease in snow pack is in the Rio Grand basin and Dolores which are 50% of avg. Gunnison is not far behind Rio Grand in terms of biggest decreases. Snow pack for both basins have been affected by lack of moisture
- According to the Colorado Water Supply Index (SWSI), all of the river basins have experienced losses in their value from last month. NRCS's runoff forecasts 50% of the average for the Yampa River. The Yampa river basin's SWSI value changed the most giving it a value of -2.8. This value categorizes them between a moderate and severe drought.
- Colorado's streamflow forecast statewide ranges from 50-80% of average. There have been improvements in the South Platte, Arkansas & Rio Grande basins. There have been no improvements in the Gunnison and Yampa basins and west of the divide forecast 50-70% of average.
- The percentage of average peak statewide is less than 50% in the central part of the state. The Dolores basin is down to 0% of peak.
- The agriculture sector has yet to experience Hydrological Drought conditions but has been impacted by com an "Institutionalized Drought" due to ongoing well production issue on the South Platte and th pact call issues on the Republican River.

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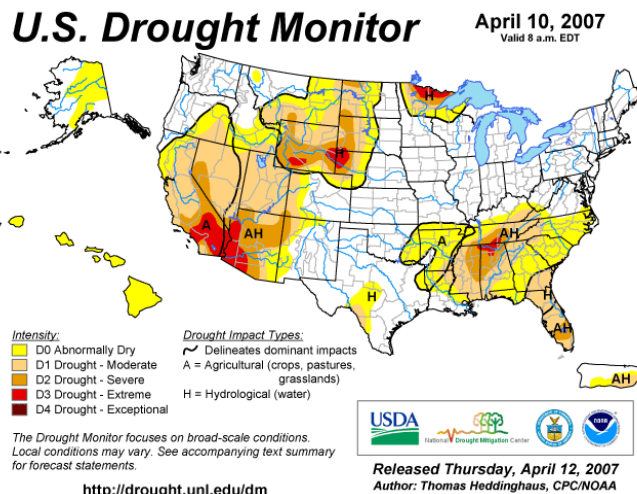
Colorado Streamflow Forecast Map



Current as of April 1, 2007

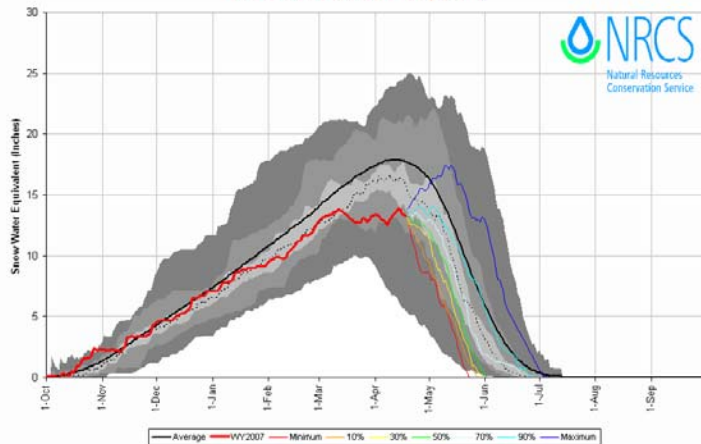
Stream flow statewide is from 50-80% of average. The Gunnison, Yampa & White and the San Miguel range in the 50-70% of average and parts of the Gunnison basin is forecasted below 50% of average. The Gunnison basin snowpack has peaked in mid-March and is likely to melt out before June 1<sup>st</sup>. The Yampa & White basin also peaked mid-March and early melting is forecasted before June. The San Miguel basin, again, peaked mid-March and is forecasted to melt out between mid-May and June 1<sup>st</sup>. Temperature will play the major role in future forecasts with each basin.

The US Drought Monitor graph shows the western part of Colorado trending towards a drought. By most definitions the state as a whole is out of the drought from the early 2000's. If temperatures remain warmer than average and precipitation below average, the drought will migrate east. The Climate Diagnostic Center (CDC) Forecast Guidance is forecasting drier than normal for Western Colorado.



Colorado State-Wide with Non-Exceedence Projections

Based on Provisional SNOTEL Data as of Apr 18, 2007



The NRCS has forecasted Colorado will break a record for earliest melt out. The average melt out is in the middle of July. Colorado's snow pack peaked in middle of April and the chance of getting to the average peak is non-existent unless the state gets cooler and wetter conditions.

## Long Term Forecast Summary

It is likely but not guaranteed that La Nina will bring a dry and hot summer for Colorado. If so, drought concerns should focus on south/western Colorado. Because of a lackluster snow pack and a dry & warm spring, the stage has been set for a difficult summer. The monsoon season is expected to come later than normal and last until the end of August. It is not forecasted to be as active as last year. HDR is forecasting dry climate from June until September and the Southwest will benefit from moister climate than the rest of the state.

**NOTE:** The maps and graphics depicted in this report were those presented at the April 18, 2007 meeting and may have been updated since the meeting.