
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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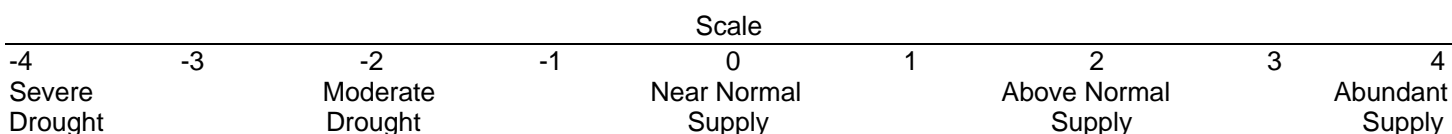
December 2007

The Surface Water Supply Index (SWSI) developed by this office and the U.S.D.A. Natural Resources Conservation Service is used as an indicator of mountain-based water supply conditions in the major river basins of the state. It is based on snowpack, reservoir storage, and precipitation for the winter period (November through January). During the winter period, snowpack is the primary component in all basins except the South Platte basin where reservoir storage is given the most weight.

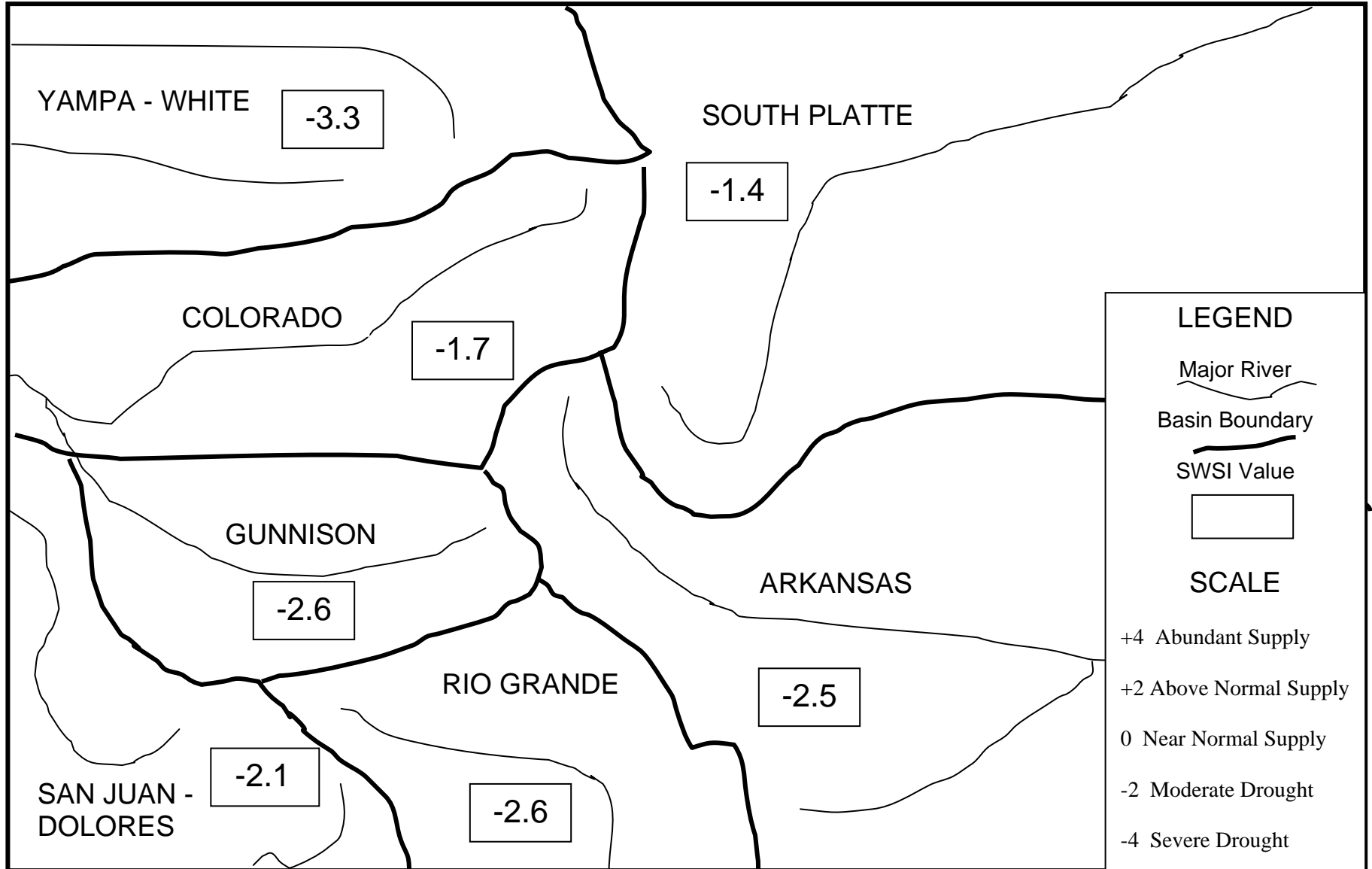
The statewide SWSI values for December range from a high value of -1.4 in the South Platte Basin to a low value of -3.3 in the Yampa/White Basin. All of the basins experienced a loss from the previous month's values largely due to the switch from using streamflow information in the calculation to using snowpack information in the calculation.

The following SWSI values were computed for each of the seven major basins for December 1, 2007, and reflect the conditions during the month of November.

<u>Basin</u>	<u>December 1, 2007 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	- 1.4	- 3.2	- 2.7
Arkansas	- 2.5	- 3.2	- 2.9
Rio Grande	- 2.6	- 5.0	- 4.7
Gunnison	- 2.6	- 2.7	- 1.8
Colorado	- 1.7	- 3.6	- 3.0
Yampa/White	- 3.3	- 4.7	- 3.6
San Juan/Dolores	- 2.1	- 4.5	- 3.7



SURFACE WATER SUPPLY INDEX FOR COLORADO



December 1, 2007

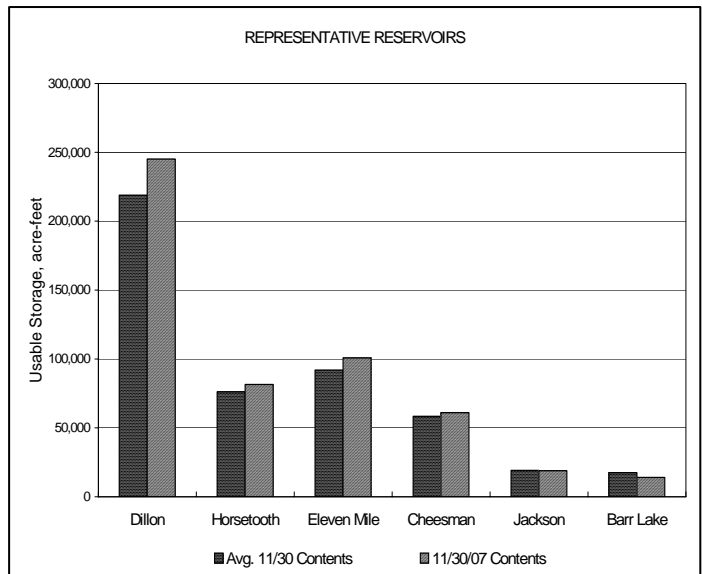
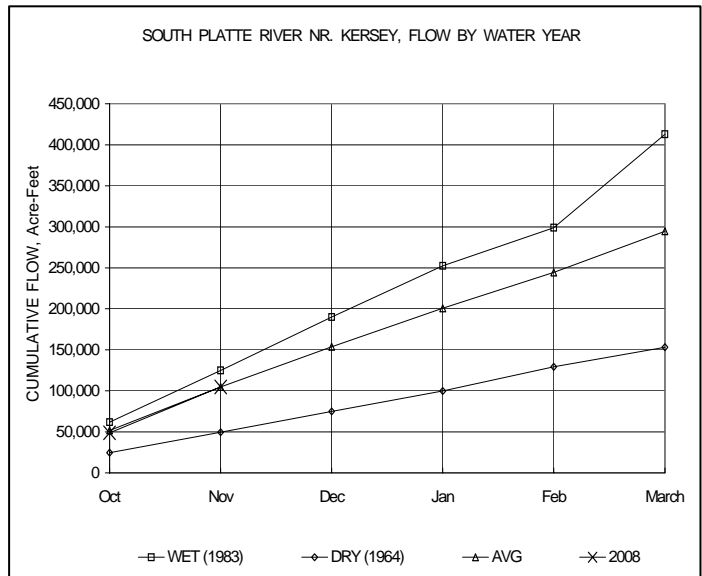
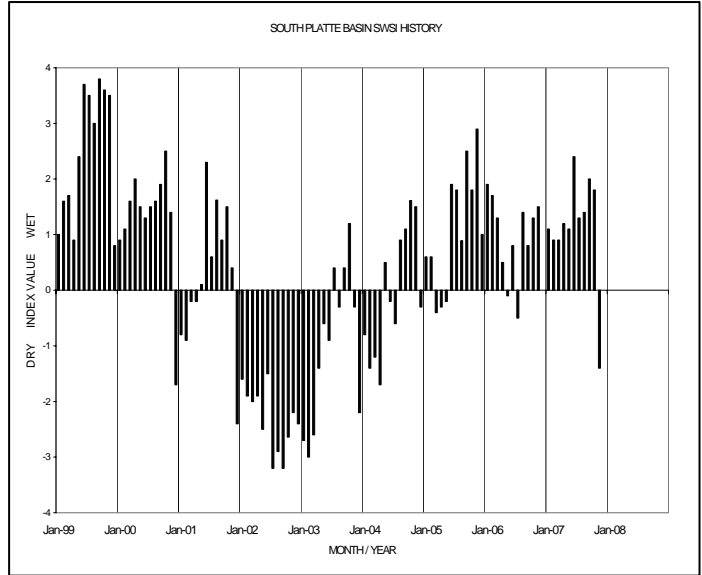
Basinwide Conditions Assessment

The SWSI value for the month was -1.4. Cumulative storage for the six reservoirs graphed on this page was 108% of normal as of the end of November. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 57% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 89% of capacity. The Natural Resources Conservation Service reports that December 1 snowpack is 58% of normal. Flow at the gaging station South Platte River near Kersey was 938 cfs, as compared to the long-term average of 737 cfs. Flow at the Colorado/Nebraska state line averaged 71 cfs.

Outlook

Diversions in November below Denver along the South Platte were for storage as the irrigation season ended. Upstream diversions on the mainstem and tributaries were also primarily for storage purposes with continued diversions for direct flow municipal use for some municipalities. A few mainstem reservoir owners did not divert in November as they were working on their inlet ditches or reservoir dams.

By November 21, Julesburg Reservoir had reached its winter fill allowing diversions to occur for recharge purposes in District 64. While overall storage is in significantly better shape for irrigation reservoirs at this time than last year, diversions will continue primarily for storage in the river above District 64 until the spring unless poor weather conditions limit diversions for storage.



Basinwide Conditions Assessment

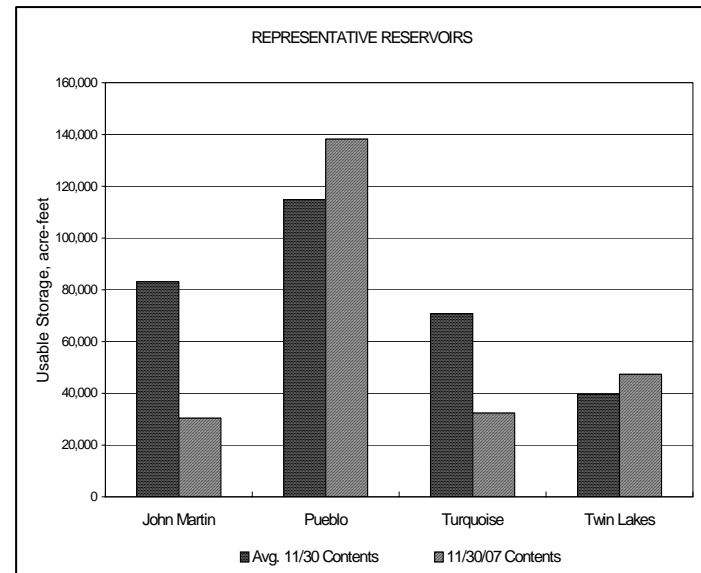
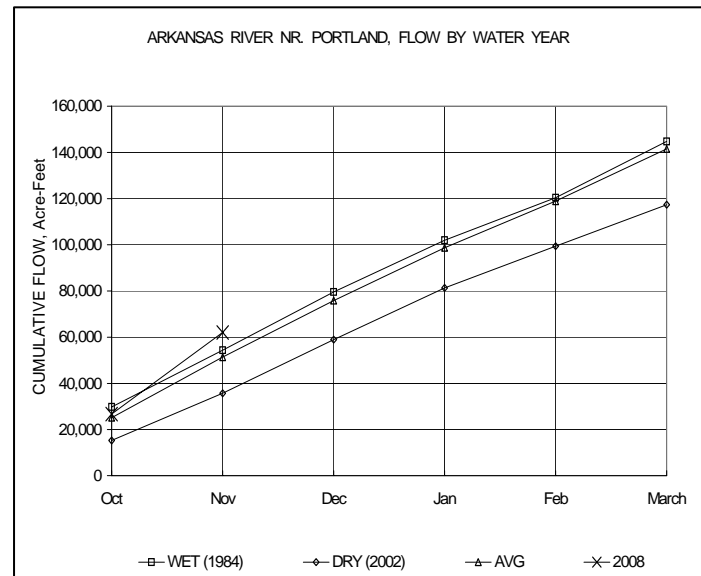
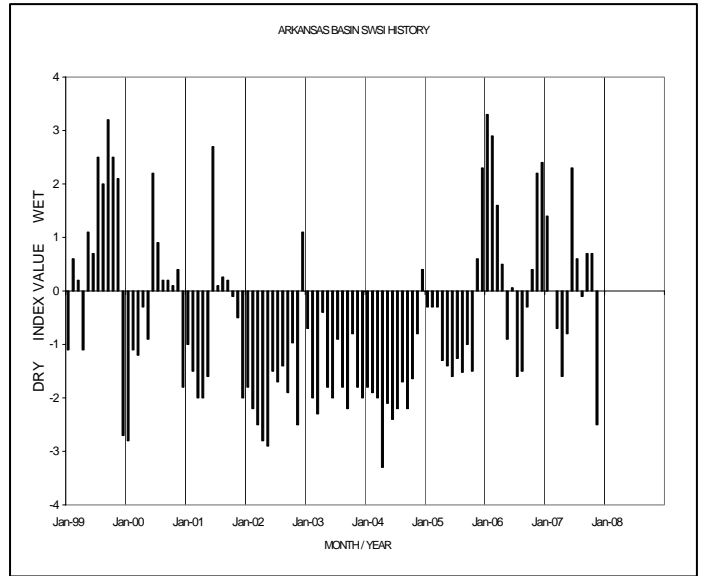
The SWSI value for the month was -2.5. The Natural Resources Conservation Service reports that December 1 snowpack is 48% of normal. Flow at the gaging station Arkansas River near Portland was 594 cfs, as compared to the long-term average of 441 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 81% of normal as of the end of November.

Outlook

Winter Compact storage began in John Martin Reservoir on November 1, 2007. The Pueblo Winter Water Program began operation on November 15, 2007 with storage taking place initially in Pueblo and John Martin Reservoirs and under the Fort Lyon Canal system in Adobe Creek Reservoir.

Administrative/Management Concerns

Kansas and Colorado worked through final resolution of numerous aspects of a final decree in the longstanding litigation. The final decree and a set of complex appendices will be reviewed by the Special Master in the Supreme Court case and will become part of his fifth and final report to the Supreme Court. One important finding in the decree is that Colorado has successfully operated under Use and Measurement Rules for wells in the Arkansas River Basin bringing Colorado into compliance for the first ten-year accounting period from 1997-2006. Colorado ended this period with a delivery surplus of just less than 4000 acre-feet.



Basinwide Conditions Assessment

The SWSI value for the month was -2.6. The Natural Resources Conservation Service reports that December 1 snowpack is 49% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 227 cfs (79% of normal). The Conejos River near Mogote had a mean flow of 58 cfs (59% of normal). Streamflow in the Upper Rio Grande basin had been near or above normal for the previous three months. November's sub-par flows were due to lack of precipitation. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 99% of normal as of the end of November.

Precipitation in Alamosa during November was 0.42 inches, 0.06 inches below normal. Temperatures ranged from -11 degrees to 68 degrees in Alamosa where the average monthly temperature was 30.7 degrees, 2.3 degrees above normal. The first three weeks of November were extremely warm and dry with very low wind throughout the San Luis Valley.

Outlook

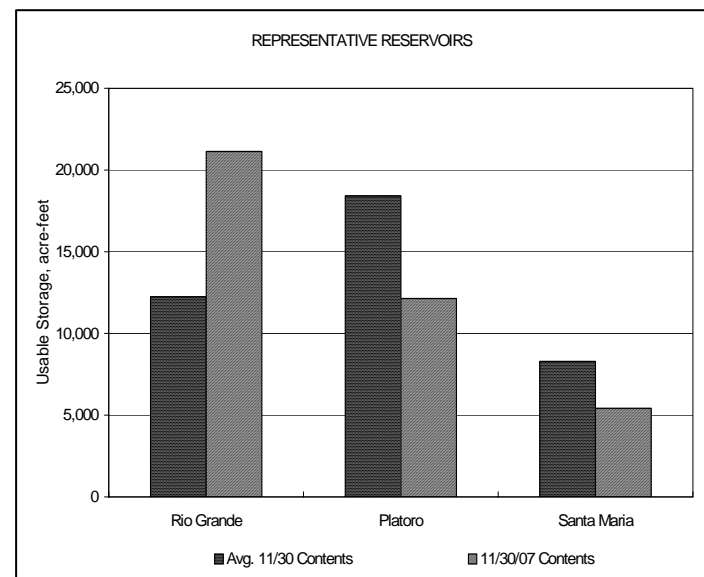
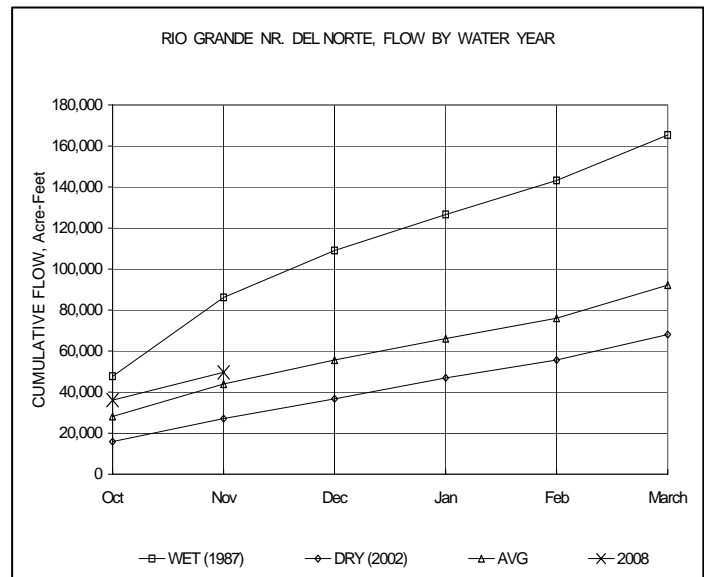
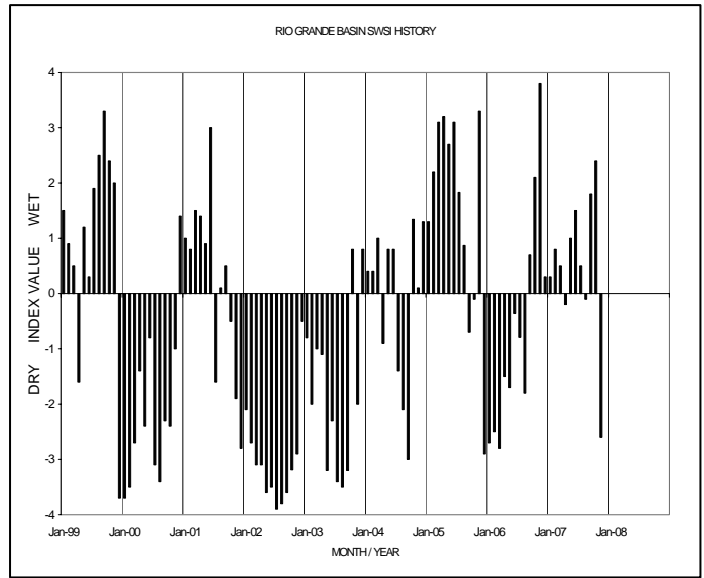
Short-term forecasts call for warmer and wetter than normal conditions in the upper Rio Grande basin. However, a look at 90 days out shows a trend towards drier than average patterns. A very poor start to building this winter's snowpack fueled great concern over another drought year for 2008. But a blast of snowfall on November 30 and December 1 brought snowpack conditions from about 20% of normal to 90% of normal.

Administrative/Management Concerns

Rio Grande Compact deliveries to the state line appear to be on target to meet Colorado's 2007 obligation as of December 1st. Ditch diversions from the Rio Grande, the Conejos and their tributaries were shut off for the season on November 1 and reservoirs went into priority storage.

Public Use Impacts

The mild temperatures and low wind during November allowed farmers to work in the fields much longer than expected but winter sports were hampered by poor snowpack in the higher elevations.



Basinwide Conditions Assessment

The SWSI value for the month was -2.6. The Natural Resources Conservation Service reports that December 1 snowpack is 52% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 76.2 cfs, as compared to the long-term average of 67.7 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 116% of normal as of the end of November.

Outlook

November was another dry month. Many people have been commenting on the sparse snow cover on the mountain passes, nearly bare conditions. A good storm at the end of the month helped the conditions considerably.

Administrative/Management Concerns

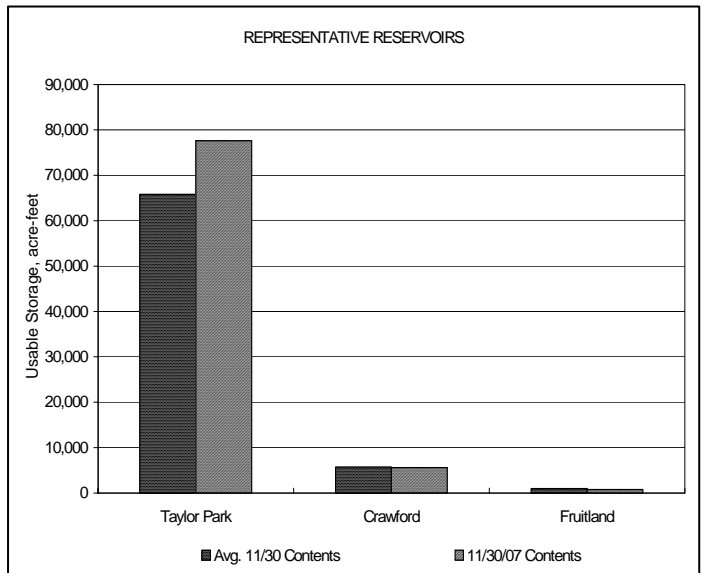
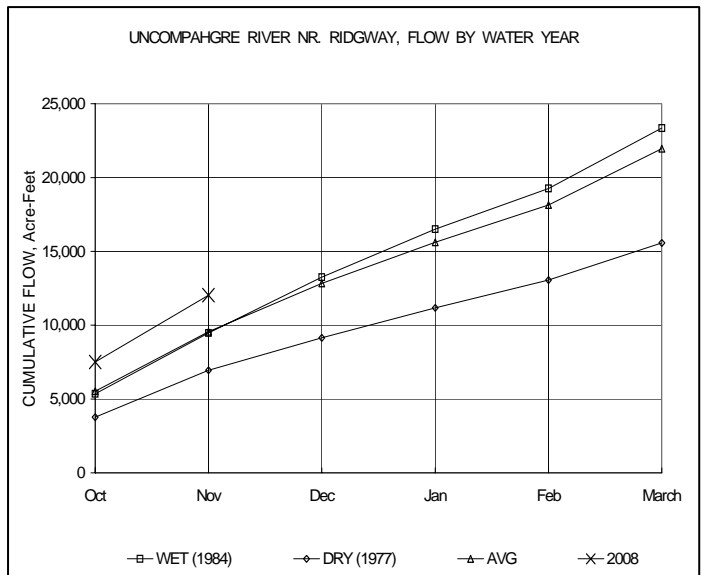
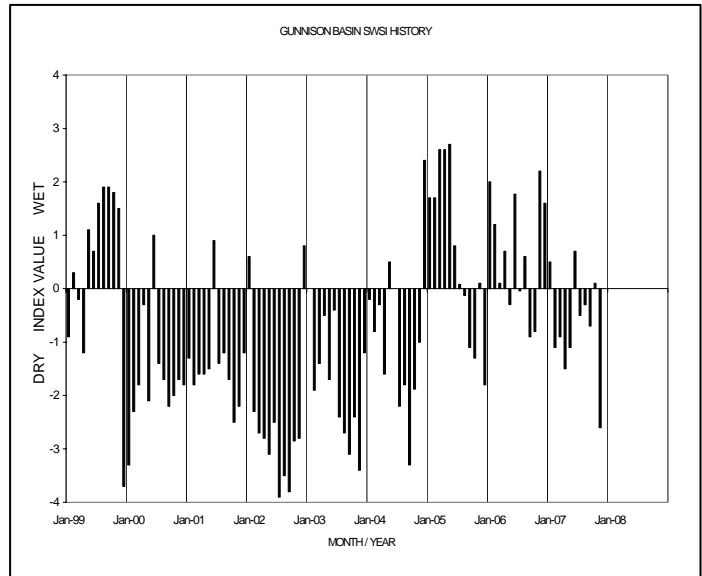
The dry conditions in October and November have caused the flows to drop below normal.

The releases out of the Aspinall Unit into the Black Canyon National Park have continued at 1200 cfs for the entire month of November. The normal release through the winter is closer to 600 cfs. This higher release should bring down Blue Mesa Reservoir to elevation 7490 by the end of December. It will also allow the Aspinall Unit to generate more power during the high demand months of December and January.

The mediation process has begun for quantification of flows in the Black Canyon National Park. So far there have been four one-day sessions with two more scheduled in December. It is hoped that a resolution is reached before the end of January 2008 or the case will proceed in Water Court.

Public Use Impacts

To start the snow pack year with such dry conditions brings back painful memories of the drought of 2002. Being about 25% into the snowfall season, this is poor start that will need some serious catching up. A few good storms would get the Gunnison Basin back on track and salvage a reasonable runoff year.



Basinwide Conditions Assessment

The SWSI value for the month was -1.7. The Natural Resources Conservation Service reports that December 1 snowpack is 57% of normal. Flow at the gaging station Colorado River near Dotsero was 951 cfs, as compared to the long-term average of 1133 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 110% of normal as of the end of November.

Outlook

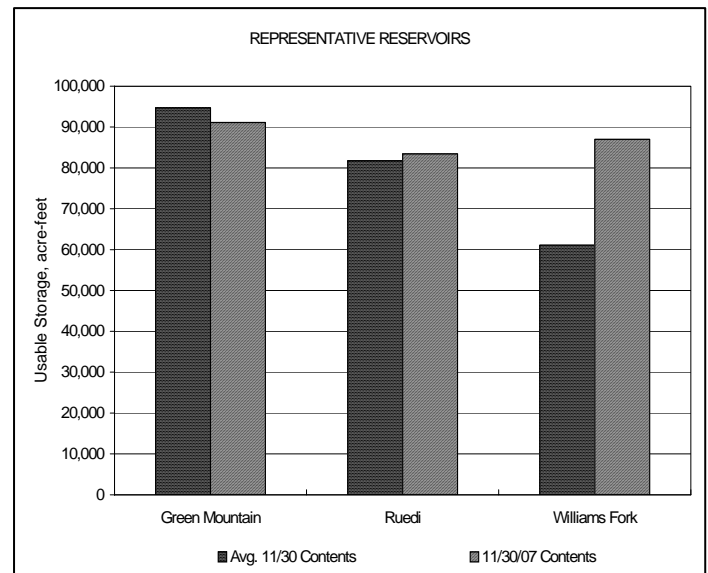
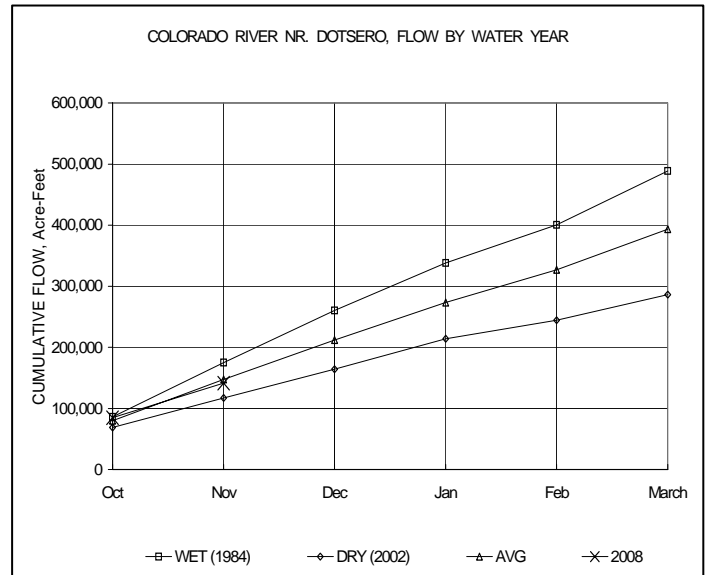
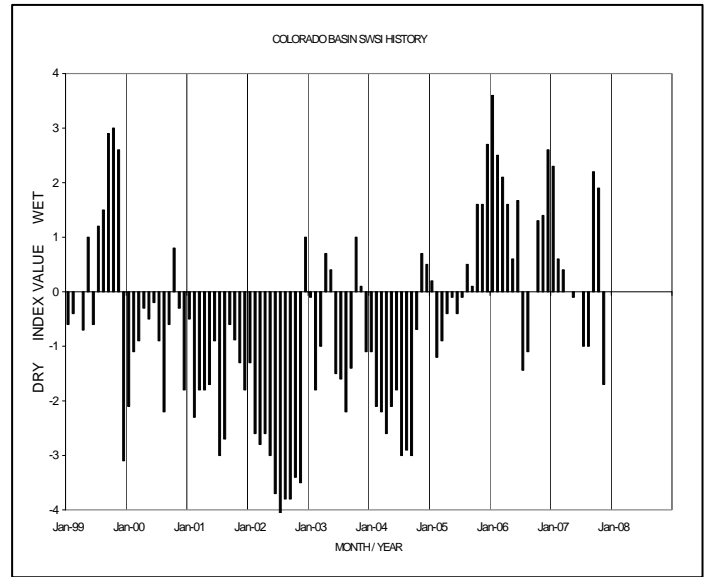
Upper Colorado River Basin precipitation levels were down overall for the month of November ranging from 77 to 319 percent of average, with approximately one third of the sites registering below 100 percent of average. Basin-wide precipitation remains above average at 111 percent of average. Basin reservoirs volumes remain above average for this time of year, with Dillon reservoir is continuing above average releases to reach its winter storage target level.

Administrative/Management Concerns

A settlement was reached between Denver Water and Eagle County water managers (Eagle River Water and Sanitation District and Upper Eagle Regional Water Authority) over water rights held by Denver dating back to the 1960's. Under the legal agreement reached, Denver Water is giving up the majority of these rights, primarily from lack of diligence in developing uses for the water over the past 35 years. Some of the water rights were retained along with the right to participate in a possible reservoir project in Wolcott.

Public Use Impacts

Construction of a whitewater park will soon begin on the Colorado River in West Glenwood Springs featuring high, medium, and low water features.



Basinwide Conditions Assessment

The SWSI value for the month was -3.3. Flow at the gaging station Yampa River at Steamboat was 147 cfs, as compared to the long-term average of 130 cfs.

November precipitation was well below average for the Yampa, White, and North Platte River basins. Precipitation for the month, as measured at the SNOTEL sites operated by the NRCS, was reported at approximately 41% of average for the Yampa/White River basin and 41% of average for the North Platte River basin.

The snow water equivalent (SWE) as of November 30, 2007 for the Yampa and White River basins was 43% of average and for the Laramie and North Platte River basins was 60% if average. For the individual basins, the snowpack at the end of the month was 57% of average for the North Platte River basin, 44% of average for the Yampa River basin, and 43% of average for the White River basin.

Due to the cold night temperatures, many of the Division 6 stream gages are either closed for the winter season or currently ice-affected.

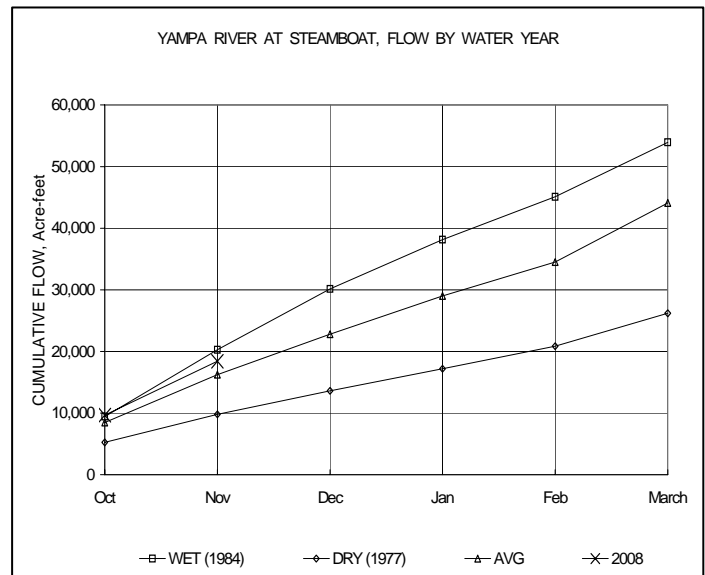
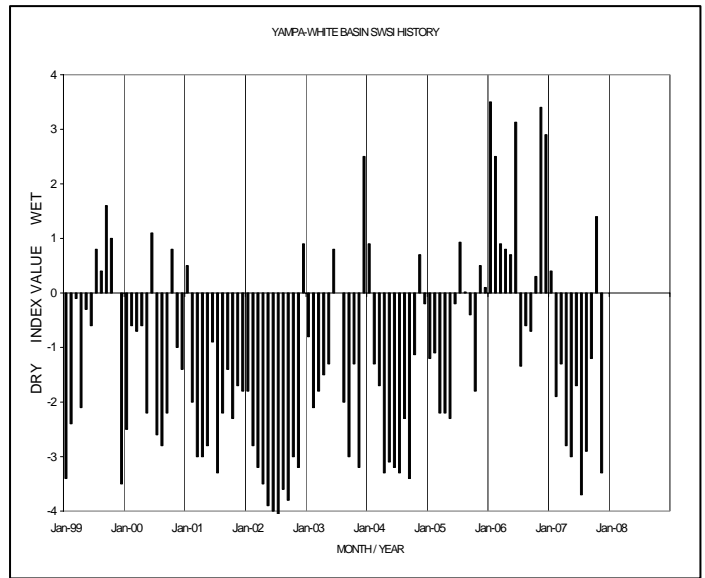
Outlook

Fish Creek Reservoir storage level increased slightly in November and was reported at approximately 78% of capacity at the end of the month. Yamcolo Reservoir storage level also increased in November and the reservoir was at approximately 52% of capacity at the end of the month. Elkhead Creek Reservoir level also increased slightly during the month and the reservoir was at approximately 65% of its' enlarged capacity at the end of November. Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir for irrigation purposes, and Elkhead Creek Reservoir for municipal, industrial, and recreation purposes, as well as fish recovery releases.

Administrative/Management Concerns

Remaining calls were released in November and no streams in Division 6 remained under administration at the end of the month.

The first fish recovery release from Elkhead Creek Reservoir was completed successfully and data collected during the release is still being compiled and reviewed by participating agencies. The program was directed by the Colorado River District, on behalf of the Recovery Program and Division 6 was responsible for protecting this water through the Yampa River critical habitat reach.



Basinwide Conditions Assessment

The SWSI value for the month was -2.1. The Natural Resources Conservation Service reports that December 1 snowpack is 57% of normal. Flows at the Animas River at Durango averaged 289 cfs (101% of normal) with an average daily peak flow of 405 cfs on November 1st. The Dolores River at Dolores averaged 84 cfs (87% of normal) with an average daily peak flow of 112 cfs on November 1st. The La Plata River at Hesperus averaged 8.0 cfs (75% of normal) with an average daily peak flow of 12.1 cfs on November 1st. Durango recorded 0.78 inches precipitation for the month which is well below the 30-year average of 2.00 inches. Precipitation to date in Durango, for the water year, is 1.26 inches which is 37.3% of the historic average. Temperatures in November were well above normal for the month. Durango was 7.2° above its 30-year average high and 3.5° above its 30-year average low.

At the end of the month Vallecito Reservoir contained 69,210 acre-feet compared to its normal contents of 51,992 acre-feet (133% of normal). McPhee Reservoir has 286,801 acre-feet compared to its normal contents of 254,725 acre-feet (113% of normal). Lemon Reservoir has 21,890 acre-feet as compared to its normal content of 19,895 acre-feet (110% of normal).

Outlook

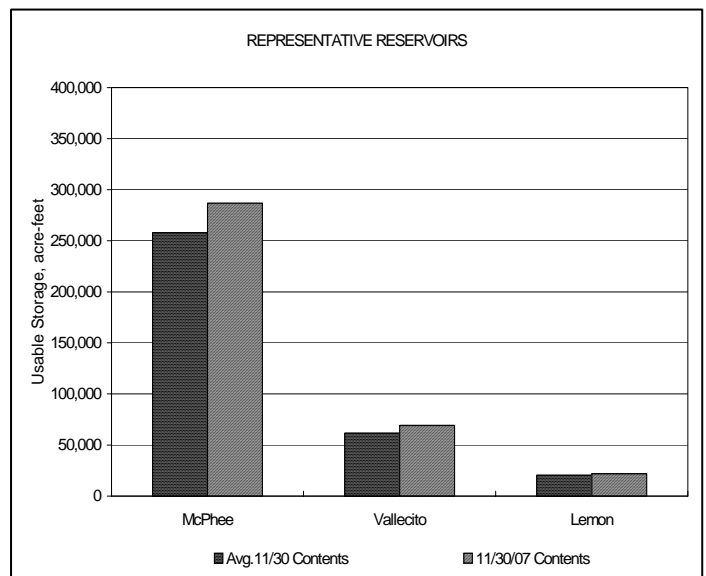
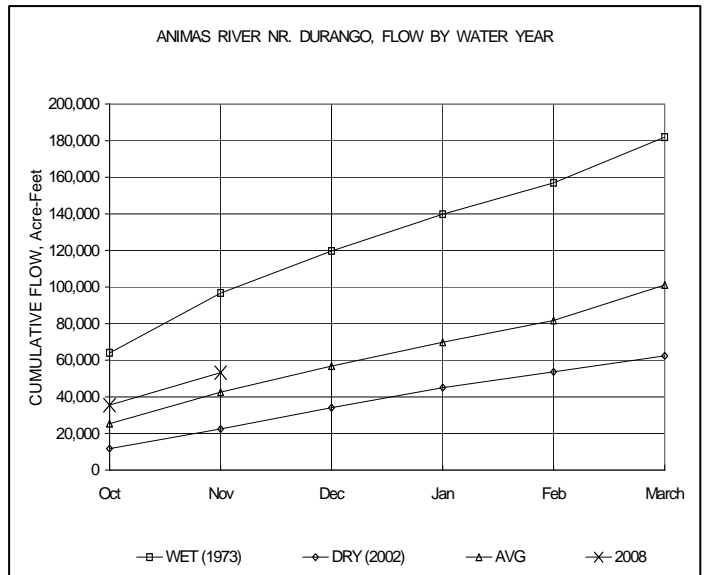
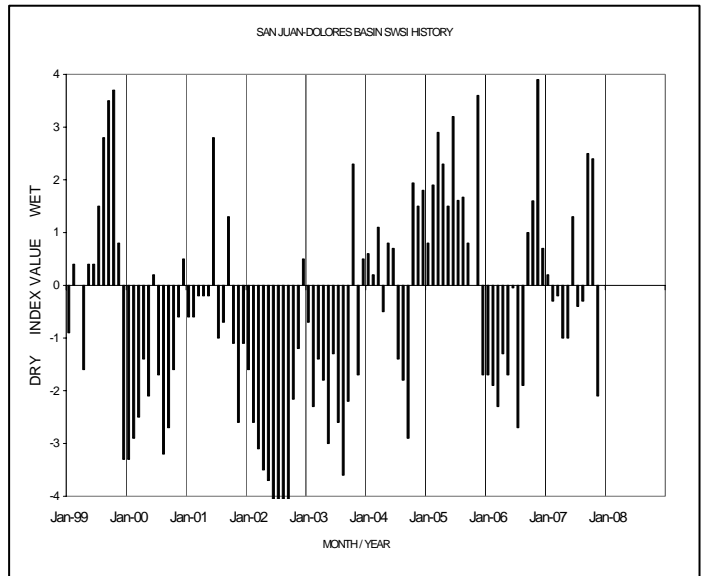
November precipitation was well below average. With the irrigation season over, many reservoirs have begun storing water for next year. Snow in the high mountains was practically nonexistent until a late subtropical storm at the end of November first part of December moved into Southwest Colorado. The snow-water-equivalent on November 28th was 23% and on December 3rd the same was 94%.

Administrative/Management Concerns

The City of Durango RICD filing and their opponents have finally reached an agreement and settled their case before it was scheduled to go to trial in January 2008. Division 7 is without a Division Engineer although the Assistant Division Engineer (Scott Brinton) as well as the rest of the division staff has stepped up and kept operations running smooth.

Public Use Impacts

DWR staff did not observe kayaking on the Animas River in the month of November.



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