
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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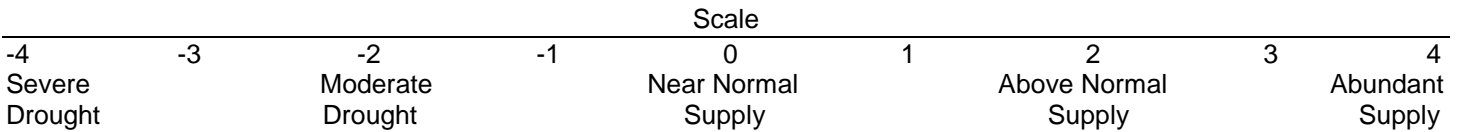
February 2010

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 of November through April (December 1 through May 1). 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.

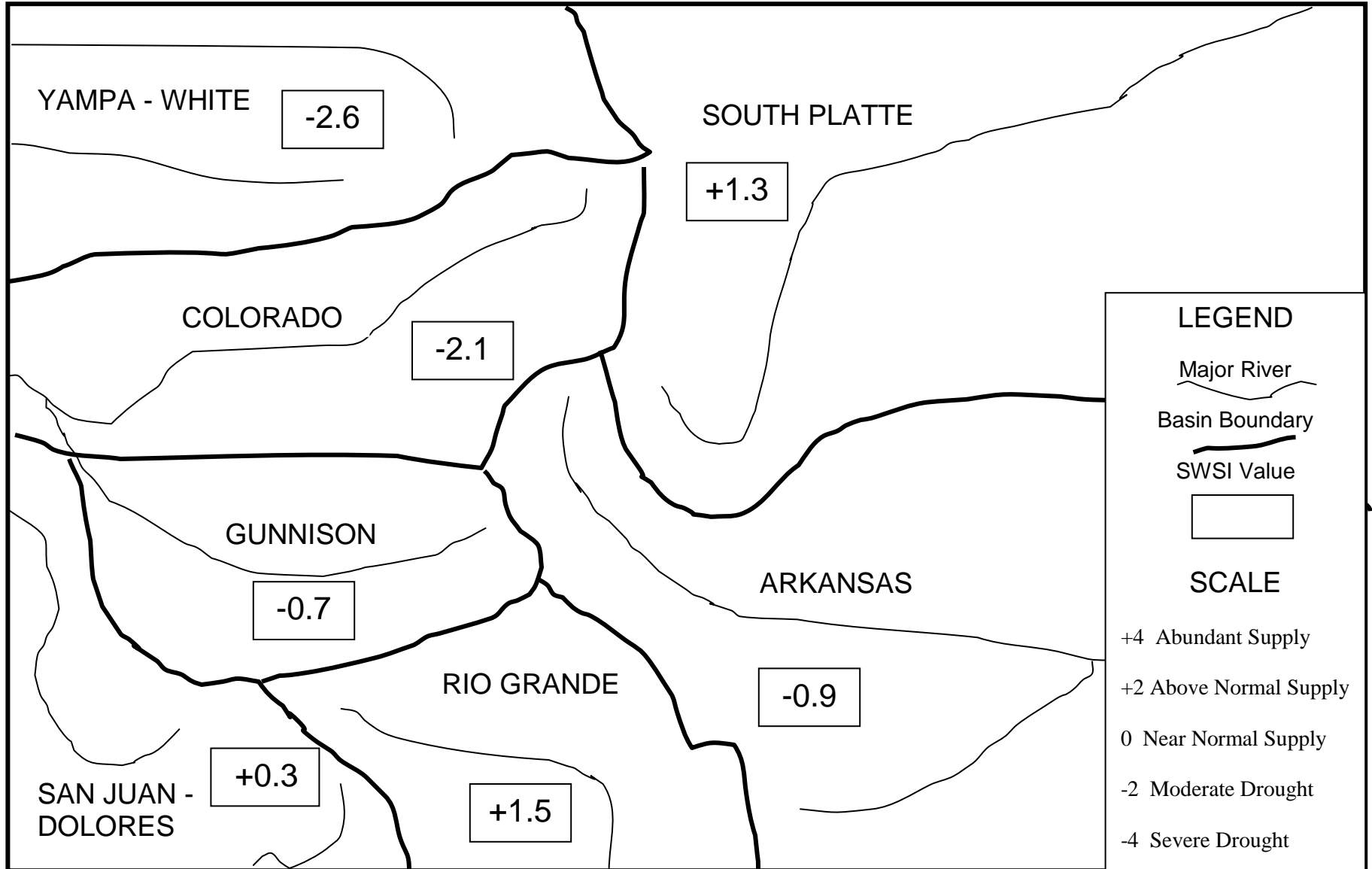
The statewide SWSI values for January (February 1) range from a high value of 1.5 in the Rio Grande Basin to a low value of -2.6 in the Yampa/White Basin. Two of the basins (Rio Grande and San Juan/Dolores) experienced a gain from the previous month's value, and five of the basins (South Platte, Arkansas, Gunnison, Colorado, and Yampa/White) experienced a loss from the previous month's value.

The following SWSI values were computed for each of the seven major basins for February 1, 2010, and reflect the conditions during the month of January.

<u>Basin</u>	<u>January 1, 2010 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	+1.3	- 0.3	+1.0
Arkansas	- 0.9	- 0.8	- 2.5
Rio Grande	+1.5	+0.9	- 0.7
Gunnison	- 0.7	- 0.3	- 1.5
Colorado	- 2.1	- 0.9	- 2.8
Yampa/White	- 2.6	- 0.5	- 3.5
San Juan/Dolores	+0.3	+0.8	- 1.1



SURFACE WATER SUPPLY INDEX FOR COLORADO



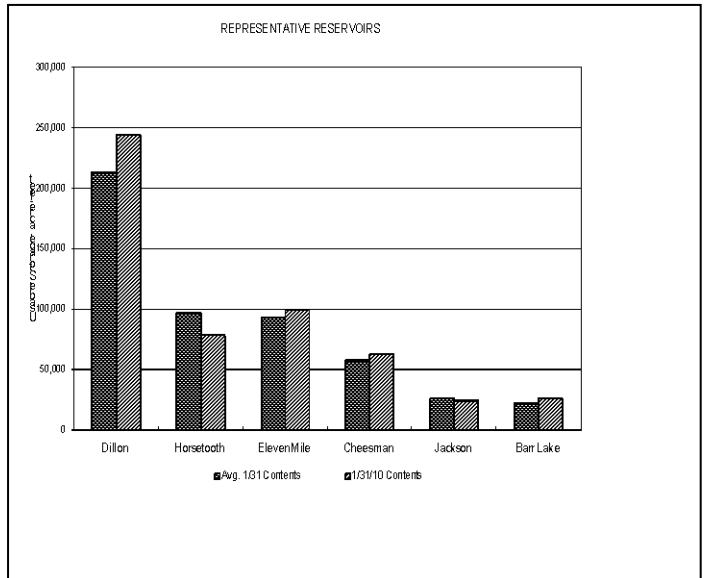
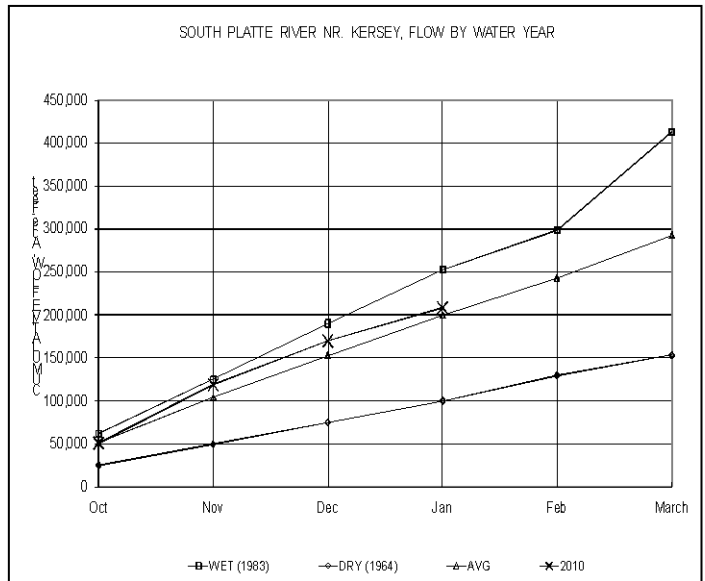
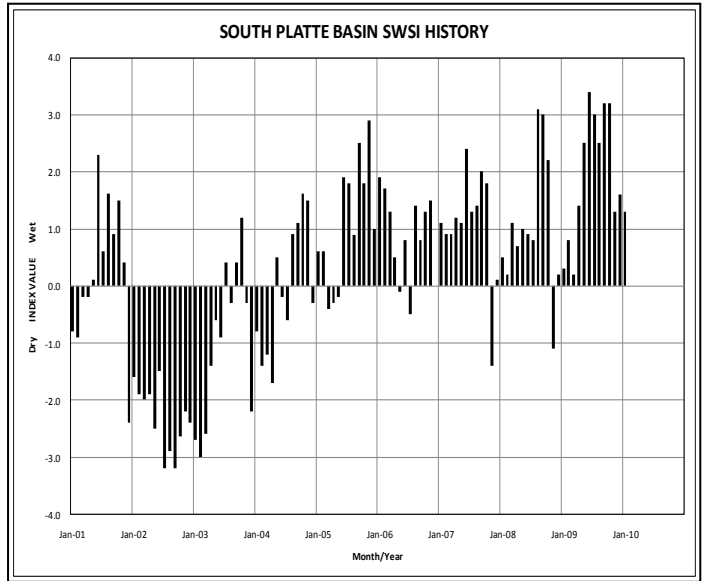
January 1, 2010

Basinwide Conditions Assessment

The SWSI value for the month was +1.3. The Natural Resources Conservation Service reports that February 1 snowpack is 80% of normal. Flow at the gaging station South Platte River near Kersey was 623 cfs, as compared to the long-term average of 652 cfs. Flow at the Colorado/Nebraska state line averaged 765 cfs. Cumulative storage for the six reservoirs graphed on this page was 105% of normal as of the end of January. Cumulative storage in the major plains reservoirs (Julesberg, North Sterling, and Prewitt) is at 86% of capacity. Cumulative storage in the major upper-basin reservoirs (Cheesman, Eleven Mile, Spinney, and Antero) is at 88% of capacity.

Outlook

Flow continued to exceed demands for the entire month on the mainstem of the South Platte and most tributaries. There was significant storage along the mainstem during the month because warmer conditions eliminated diversion limitations created by ice effects and because of the completion of dam safety construction efforts on several reservoirs. The overall storage picture remains positive with the likelihood of all major reservoirs filling by this spring providing a good start to meet next year's demands.



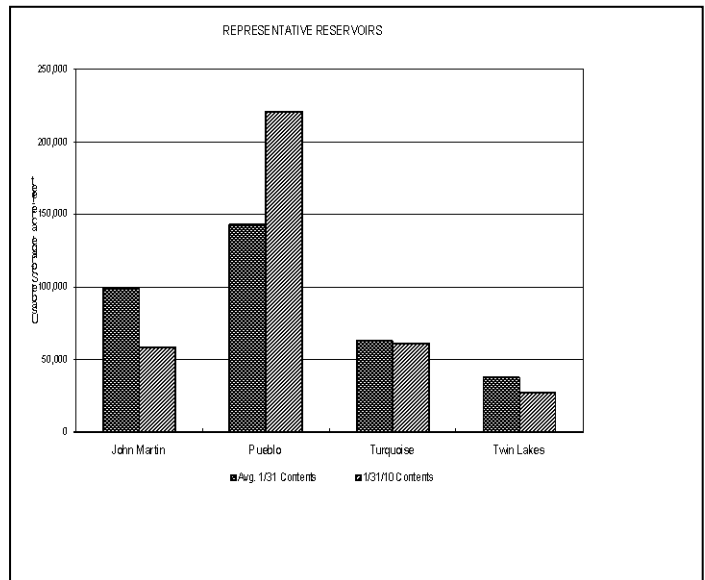
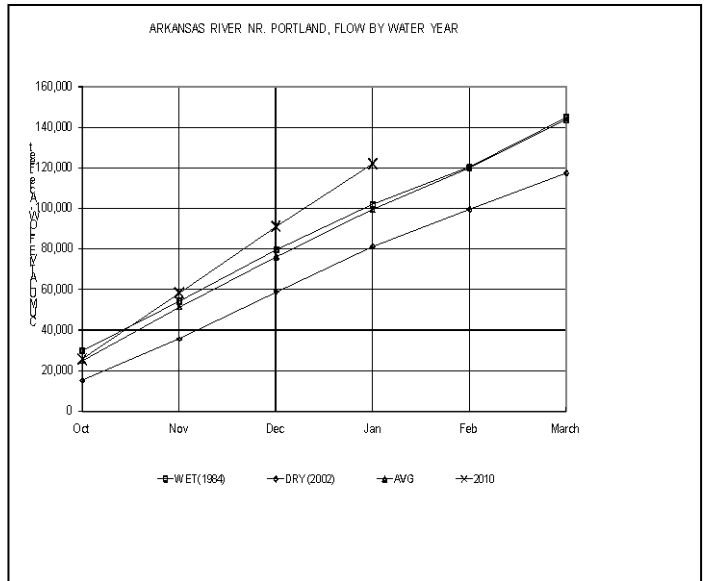
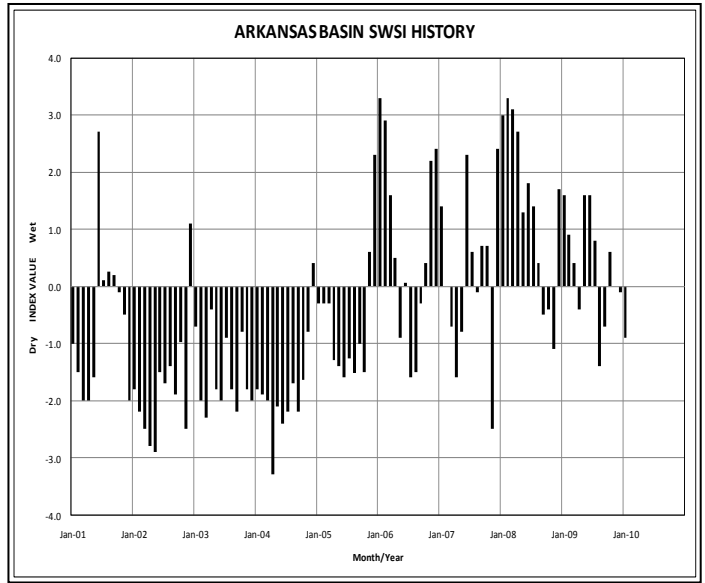
Basinwide Conditions Assessment

The SWSI value for the month was -0.9. The Natural Resources Conservation Service reports that February 1 snowpack is 90% of normal. Flow at the gaging station Arkansas River near Portland was 502 cfs, as compared to the long-term average of 377 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 107% of normal as of the end of January.

Outlook

Reservoir storage in the Pueblo Winter Water Program totaled 96,531 acre-feet as of the end of January. This storage amount is slightly lower than last year's storage to date of 99,618 acre-feet and represents 101% of the past five-year average. The overall Pueblo Reservoir storage content of 250,736 acre-feet at the end of January leaves some additional storage space in the Conservation Storage Pool in Pueblo Reservoir (256,949 acre-feet represents the maximum conservation storage). Strategic planning is underway to ensure the Fryingpan-Arkansas Project Water expected to be imported for 2010 can be stored in Turquoise, Twin Lakes and Pueblo Reservoirs without undue spills of water from Pueblo Reservoir. The Bureau of Reclamation requested approval by the Corps of Engineers to allow some encroachment into the flood control space on a temporary basis in April 2010.

Conservation storage in John Martin Reservoir has accumulated 19,333 acre-feet versus 18,342 acre-feet as of the end of January last year.



Basinwide Conditions Assessment

The SWSI value for the month was +1.5. The Natural Resources Conservation Service reports that February 1 snowpack is 110% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 144 cfs (83% of normal). The Conejos River near Mogote had a mean flow of 42 cfs (87% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 126% of normal as of the end of January.

Precipitation (+0.40 inches) and temperatures (+4.0 degrees) were above normal in Alamosa during January. Two significant storm systems on the 21st and the 28th blanketed the upper Rio Grande basin with deep snow.

Outlook

The southern areas of Colorado had two good snow-producing systems roll through during January. The result is that snowpack accumulation stood at approximately 110% of normal at the end of the month. The Natural Resources Conservation Service stream flow forecasts are now predicting runoff in area streams to be in the range of 85% to 118% of average during the 2010 irrigation season.

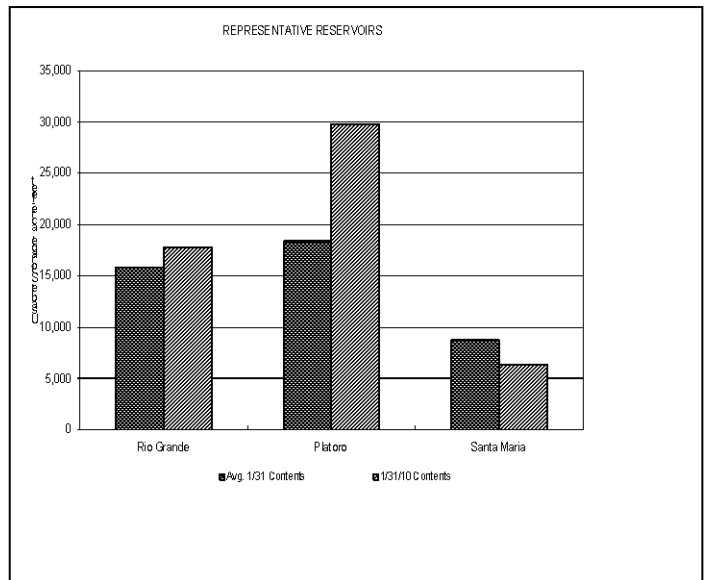
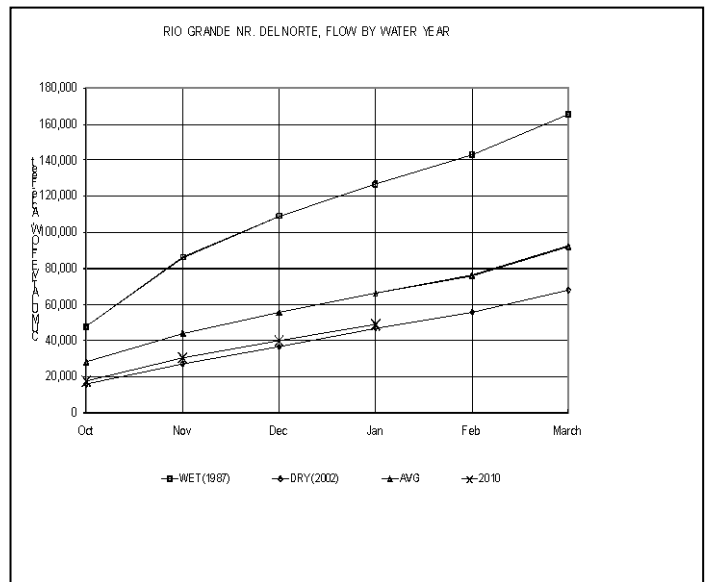
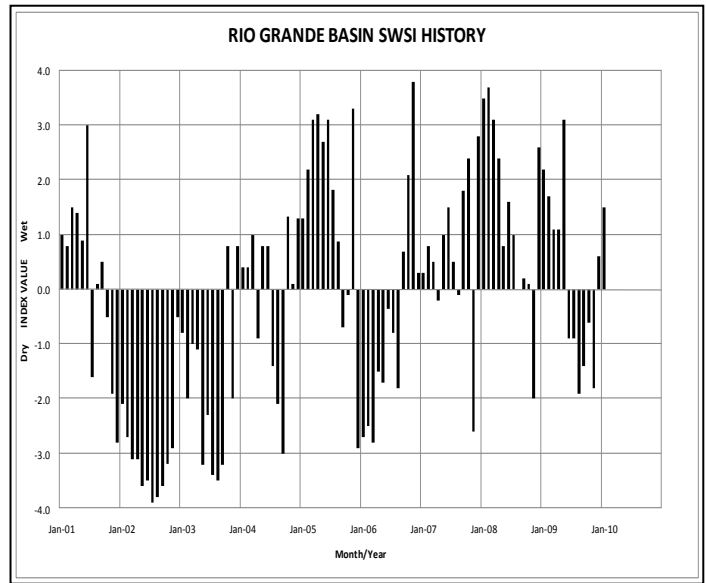
Administrative/Management Concerns

Much effort was spent during January finalizing streamflow and diversion records. The annual meetings of local districts and ditch boards are held this time of year to reflect back on the 2009 season and plan for the upcoming irrigation season.

Colorado will host the 71st Annual Meeting of the Rio Grande Compact Commission on Friday, March 26, 2010 at the Inn of the Rio Grande located just east of Colorado Highway 17 on US Highway 160. The meeting will begin at 9:00 a.m., and is open to the public.

Public Use Impacts

Snowfall hindered travel over Wolf Creek Pass and La Manga Pass for a few days during January. Other than transportation difficulties, area water users and winter sports enthusiasts are enjoying the wintery conditions.



Basinwide Conditions Assessment

The SWSI value for the month was -0.7. The Natural Resources Conservation Service (NRCS) reports that February 1 snowpack is 95% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 37.6 cfs, as compared to the long-term average of 62.4 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 100% of normal as of the end of January.

Outlook

Snowpack levels in the basin have maintained or increased slightly in January. As a result, the average snow water equivalent measurements from NRCS SNOTEL sites for the entire Gunnison Basin were at 93% of average on January 31st.

The current updated forecast for the April through July unregulated inflow into Blue Mesa Reservoir is at 575,000 acre-feet (80% of normal). Based on this forecast, Blue Mesa Reservoir is projected to fill by July 2010. The forecast is encouraging. However, history has shown that the forecast can change significantly between January and the end of the runoff season because January is still early in the snow accumulation period. The Colorado River Basin Forecast Center predicts the El Nino conditions present in the Pacific Ocean will most likely result in a drier early winter and wetter than average late winter and early spring. The weather prediction is tracking with historical El Nino conditions.

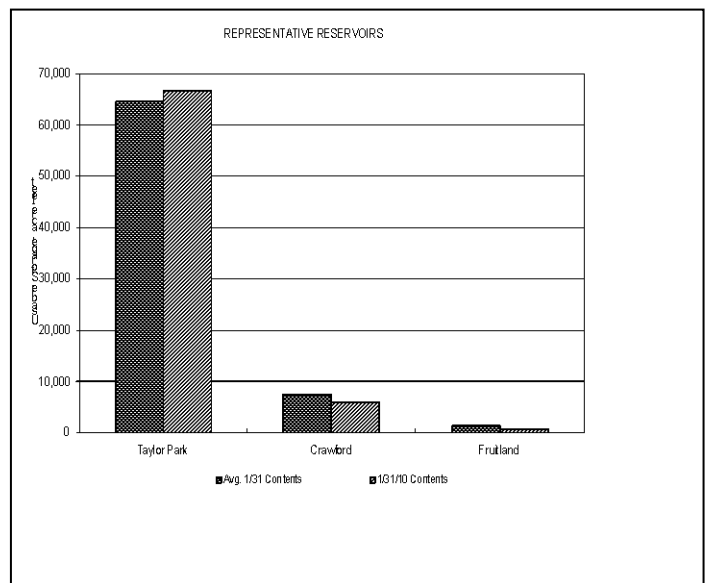
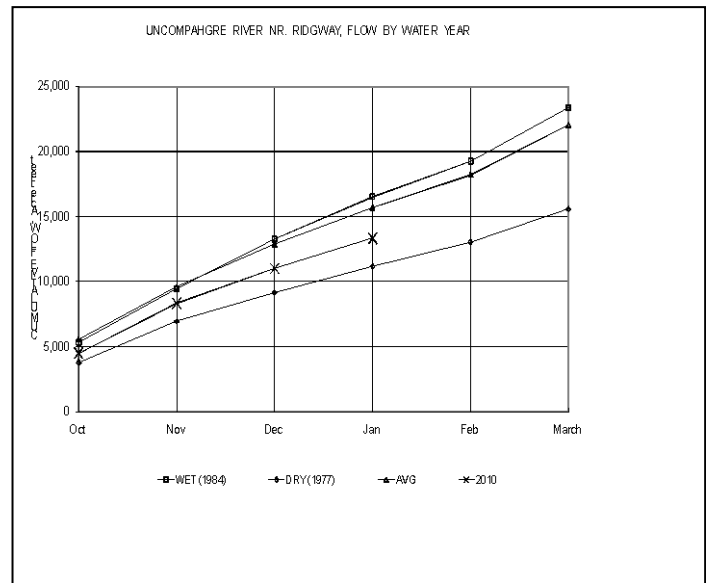
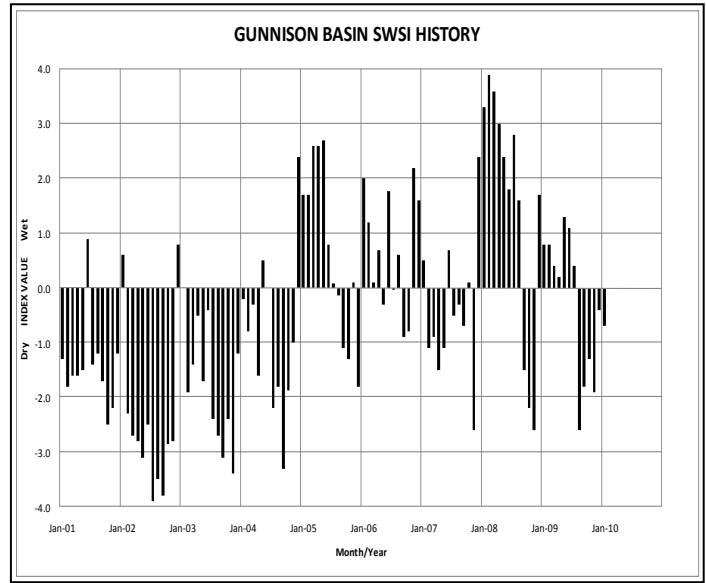
A determination of the magnitude of the spring peak for the Black Canyon water right will be made on May 1, based on an updated runoff forecast. Based on the most recent runoff forecast, the resultant 24-hour Black Canyon peak flow called for in the Federal Reserved Water Right is 4,492 cfs.

Administrative/Management Concerns

Due to the higher than average inflow rates to the Aspinall Unit, the Gunnison River below the diversion tunnel is currently flowing at 860 cfs. This rate will most likely change as conditions warrant, primarily as the Bureau of Reclamation responds to the forecasted inflows, demand for peak power generation, and scheduled maintenance activities. Gunnison River flow rates below the diversion tunnel normally run about 500 cfs for this time of the year.

Public Use Impacts

Many areas are having a very difficult time keeping stock water flowing as there is too little snow and too much ice due to the extremely cold temperatures in western Colorado this winter. The Crested Butte area is particularly suffering from the severe cold and lack of snow, which provides an insulation effect and helps keep stock water flowing in ditches. With the extreme cold and lack of snow, some municipalities are also experiencing difficulties with water and sewer lines freezing and breaking.



Basinwide Conditions Assessment

The SWSI value for the month was -2.1. The Natural Resources Conservation Service reports that February 1 snowpack is 75% of normal. Flow at the gaging station Colorado River near Dotsero was 818 cfs, as compared to the long-term average of 1,012 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 112% of normal as of the end of January.

Outlook

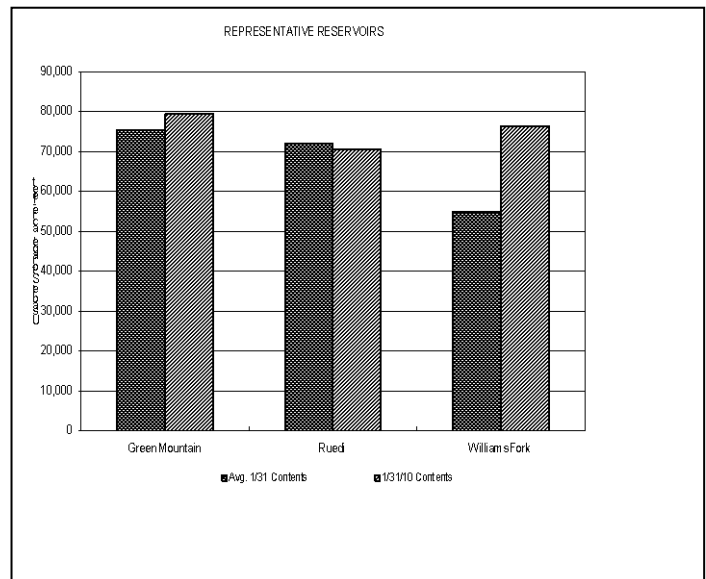
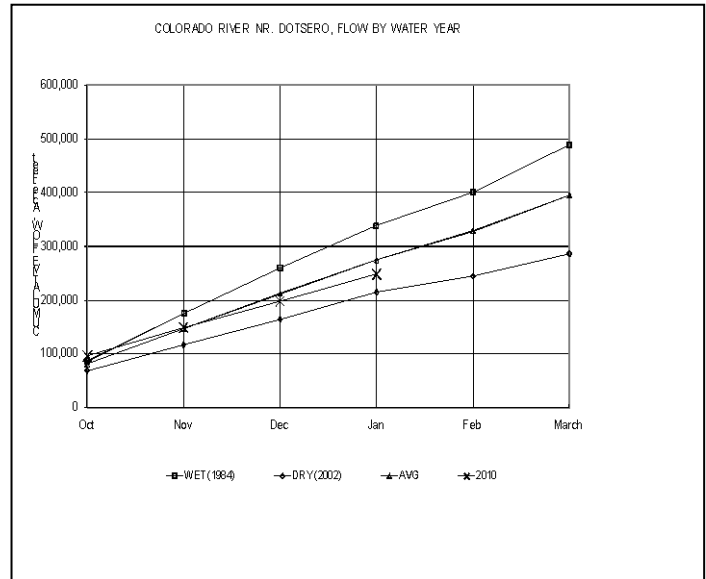
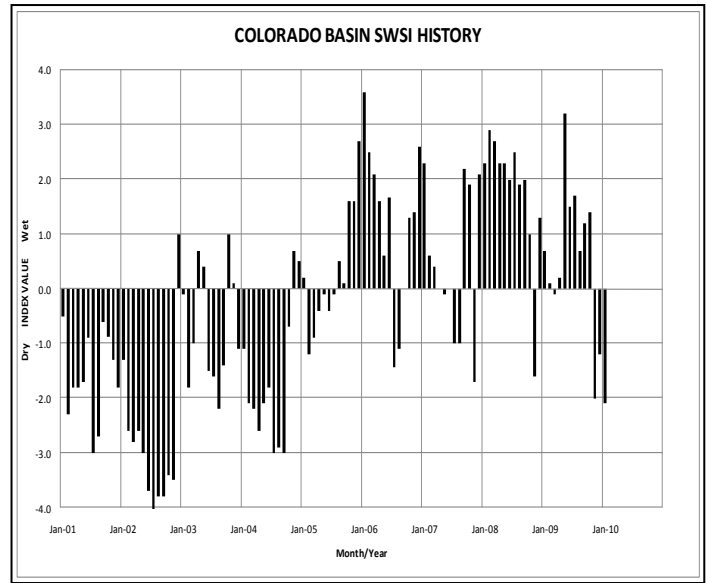
Colorado River flows continued to experience ice-affected stage variations and will likely remain below average in February. Green Mountain Reservoir releases will remain low with no call from Shoshone Power plant, which previously planned to bring one turbine back on line in January. Crystal and Roaring Fork River flows should remain below average through February as well. Snowpack in the Upper Colorado Basin continued to decline, and remains significantly below average at 74% snow water equivalent as of February 1st.

Administrative/Management Concerns

Green Mountain Reservoir releases were cut slightly to offset an accumulated owed-to-reservoir account and reduced Dillon Reservoir releases. They should average around 140 cfs throughout the month of February. Ruedi Reservoir releases will remain well below average at 70 cfs throughout the month of February as well.

Public Use Impacts

The prospect of a near record drought year for the upper Colorado River basin is increasingly becoming a concern for state water officials. According to Mike Gillespie, snow survey supervisor for the Natural Resource Conservation Service, this winter has been a “typical El Nino winter” with heavy precipitation in the southwestern portion of the state but considerably less in the northwest. Although historically higher snowfall amounts occur in March and early April, it may not be enough to balance the current deficit. There is concern as to whether sufficient water will be available to raise Lake Powell above its current level of about 59% capacity.



Basinwide Conditions Assessment

The SWSI value for the month was -2.6. Flow at the gaging station Yampa River at Steamboat was 109 cfs, as compared to the long-term average of 102 cfs.

The dry trend continued through January and precipitation remained below average in the Yampa, White, and North Platte River basins. Precipitation for the month, as measured at the SNOTEL sites operated by the Natural Resources Conservation Service (NRCS), was reported at approximately 68% of average for the Yampa/White River basin and 61% of average for the North Platte River basin. Precipitation for the combined Yampa, White, and North Platte River basins was reported at approximately 65% of average for the month of January and 82% of average for the water year to-date.

The snow water equivalent as of January 31, 2010 was 75% of average for the North Platte River basin, 72% of average for the Yampa River basin, and 75% of average for the White River basin.

NRCS predicts below average spring and summer streamflows in the Yampa, White, and North Platte River basins. The latest runoff forecasts from the NRCS for the April through July period are 62% of average for the North Platte River near Northgate, 72% of average for the Yampa River near Maybell, 80% of average for the Little Snake River near Lily, and 79% of average for the White River near Meeker.

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

Outlook

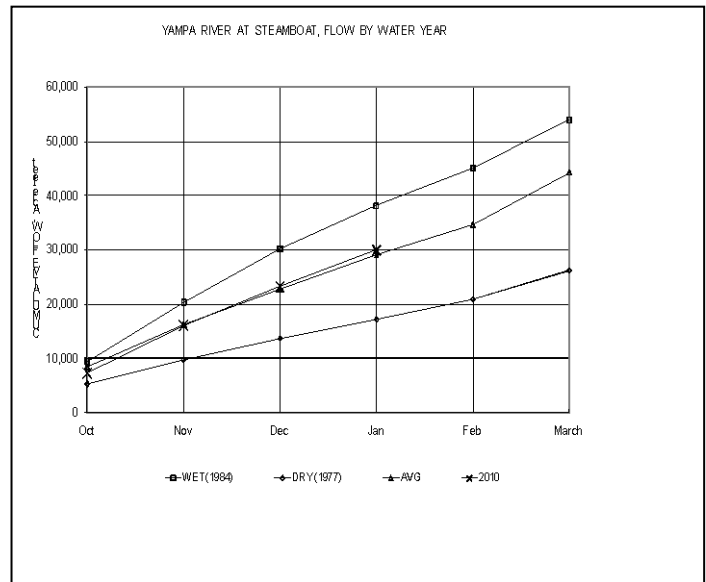
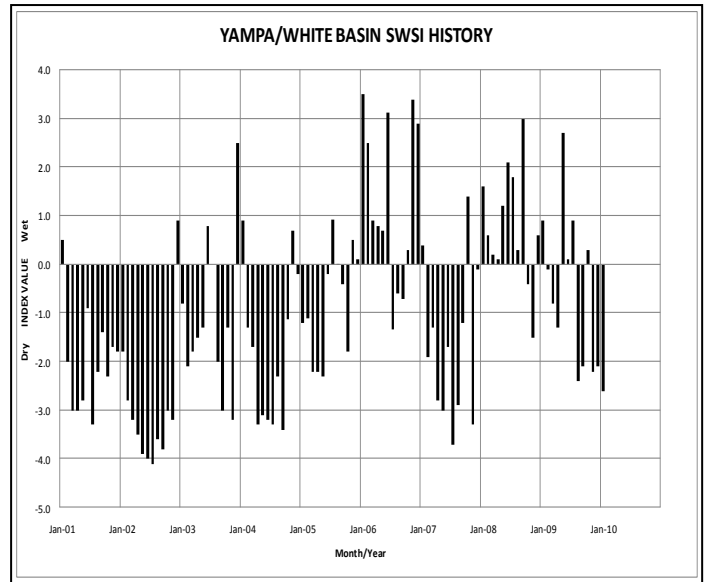
Fish Creek Reservoir storage level continued to decline in January and was reported at approximately 54% of capacity at the end of the month. Elkhead Creek Reservoir level rose slightly during the month and the reservoir was at approximately 76% of its enlarged capacity. Yamcolo Reservoir storage level also increased and the reservoir was estimated at approximately 80% of capacity at the end of January. 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 recreational purposes, as well as fish recovery releases.

Administrative/Management Concerns

The third year of the fish recovery release from Elkhead Creek Reservoir was completed successfully and data collected during the release are being compiled and reviewed by participating agencies.

Public Use Impacts

Many area reservoirs are frozen with good ice-fishing reported. Snowpack at the ski area continues to increase and all lifts and runs are open.



Basinwide Conditions Assessment

The SWSI value for the month was +0.3. The Natural Resources Conservation Service (NRCS) reports that February 1 snowpack is 106% of normal. Flows at the Animas River at Durango averaged 170 cfs (83% of average). The flow at the Dolores River at Dolores was estimated to average 45 cfs (88% of average). The La Plata River at Hesperus averaged 4.3 cfs (62% of average). Precipitation in Durango was 4.79 inches for January, 253% of the 30-year average of 1.89 inches. Precipitation to date in Durango, for the water year, is 9.82 inches, compared to the average of 6.81 inches. The average high and low temperatures for the month of January in Durango were 37° and 10°. In comparison, the 30-year average high and low for the month is 41° and 14°. The average temperatures for the month were well below their respective 30-year averages.

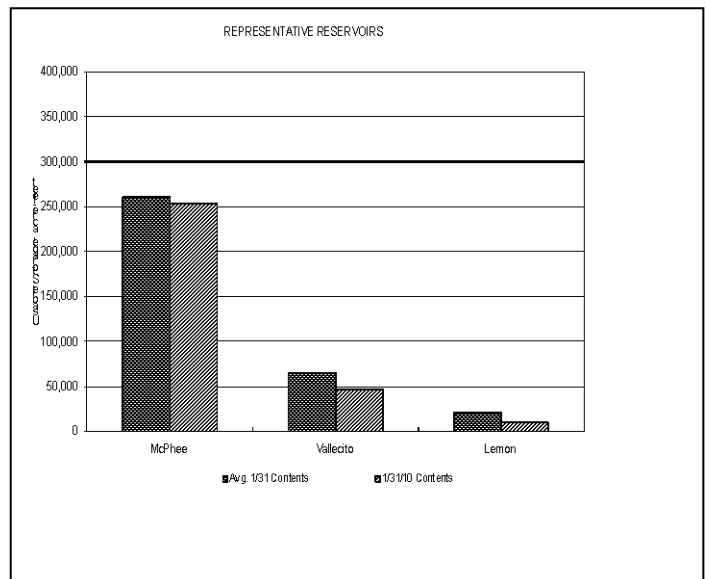
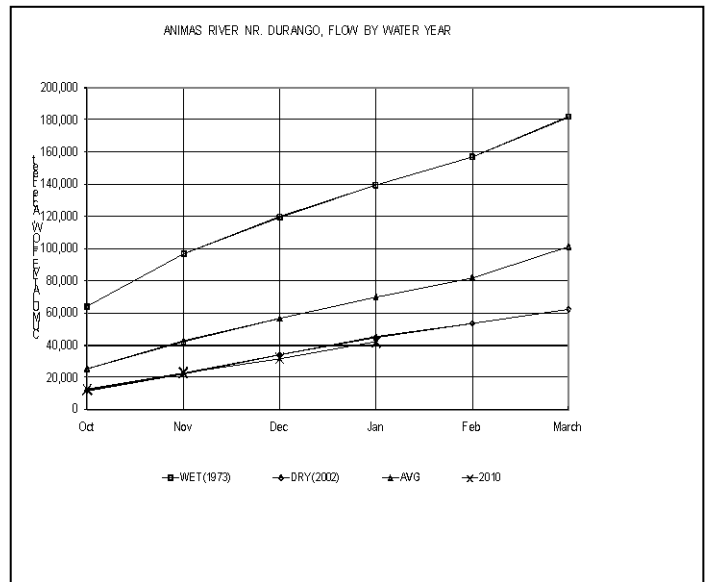
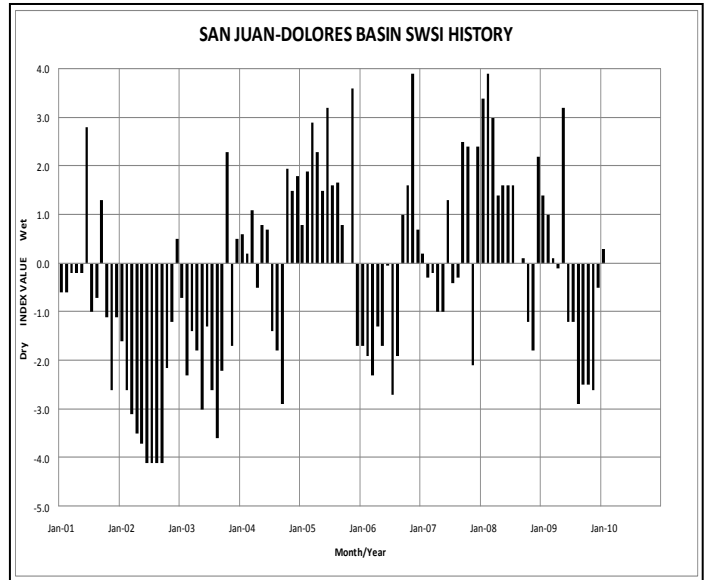
At the end of the month, Vallecito Reservoir contained 47,210 acre-feet compared to its average content of 54,020 acre-feet (87% of average). McPhee Reservoir was up to 253,904 acre-feet compared to its average content of 257,718 (99% of average), while Lemon Reservoir was up to 9,650 acre-feet as compared to its average content of 19,546 acre-feet (49% of average).

Outlook

January brought much needed moisture to the basin. The high mountain terrain as well as the lower elevations received several feet of snow as several major storm systems moved through the region. On January 31st the NRCS SNOTEL sites are reporting a 107% snow-water equivalent within the basin.

Administrative/Management Concerns

Many of the oil and gas companies within the basin filed for water rights for the produced water that is removed during the extraction of gas from the coal-bed-methane wells. Gas companies along with Division of Water Resources employees have scheduled public meetings to discuss the rules and regulations governing the use of produced water from coal-bed-methane wells.



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