
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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February 2001

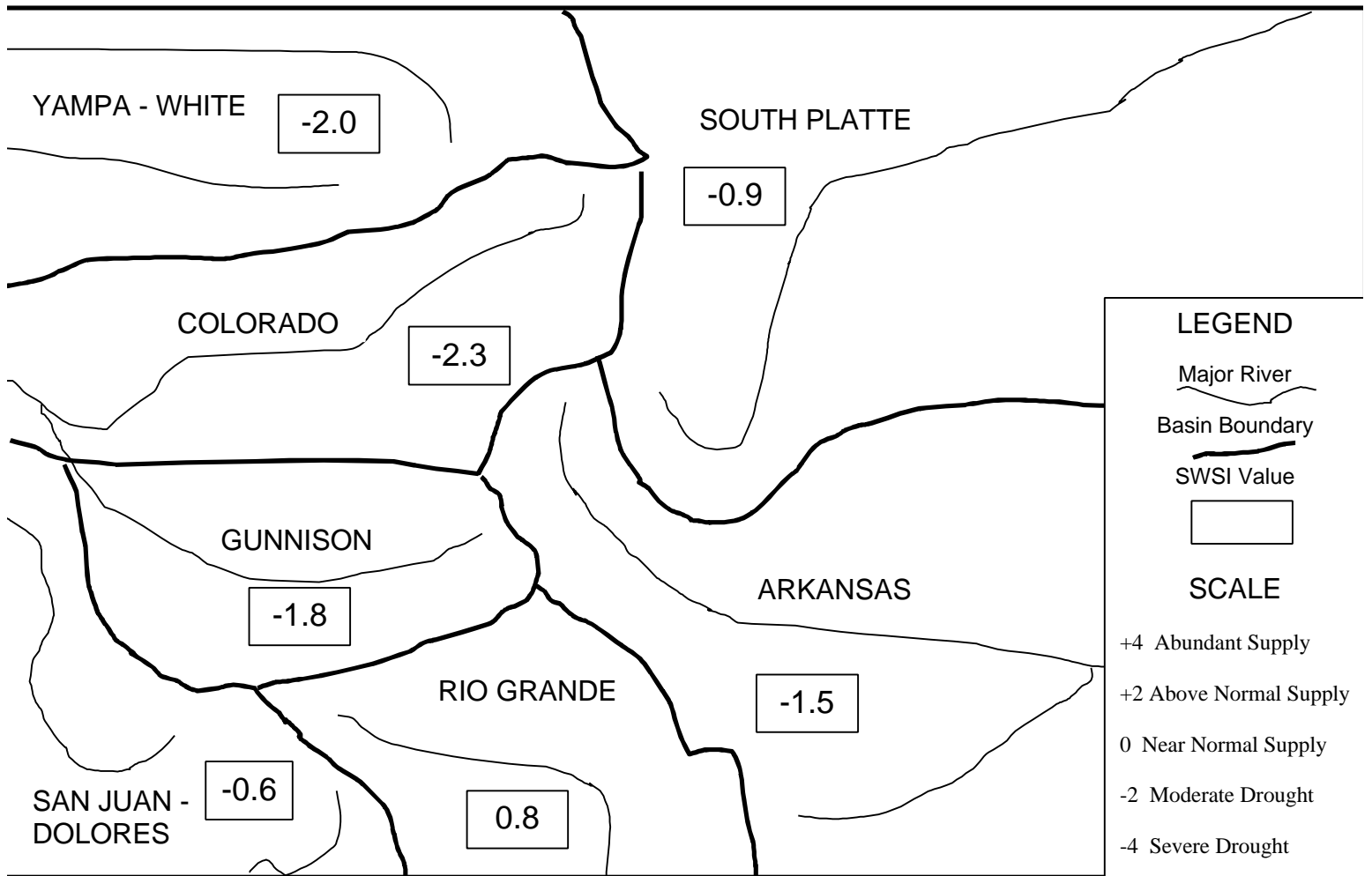
The statewide average snowpack fell from 91% of normal to 81% of normal during January. With the exception of the San Juan/Dolores Basin, all of the calculated SWSI values reflect a decrease in water supply. The most dramatic reductions occurred in the Colorado and the Yampa/White basins, due to a dry January. However, the Rio Grande and San Juan/Dolores basins are enjoying near normal temperatures, stream flows, and projected water supplies, after a very dry 2000. Reservoir storage provides significant water supply support in the South Platte and Arkansas River basins.

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 April). 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 following SWSI values were computed for each of the seven major basins for February 1, 2001, and reflect the conditions during the month of January.

<u>Basin</u>	<u>February 1, 2001 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	-0.9	-0.1	-2.0
Arkansas	-1.5	-0.5	-0.4
Rio Grande	0.8	-0.2	+4.3
Gunnison	-1.8	-0.5	+0.5
Colorado	-2.3	-1.8	-1.2
Yampa/White	-2.0	-2.5	-1.4
San Juan/Dolores	-0.6	0	+2.3

Scale								
-4	-3	-2	-1	0	1	2	3	4
Severe Drought		Moderate Drought		Near Normal Supply		Above Normal Supply		Abundant Supply

SURFACE WATER SUPPLY INDEX FOR COLORADO



FEBRUARY 1, 2001

Basinwide Conditions Assessment

The SWSI value of -0.9 indicates that for January the basin water supplies were near normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 87% of normal as of the end of January. Storage in the major plains reservoirs: Julesburg, North Sterling, and Prewitt, increased overall by 18,970 acre-feet during January and are at 75% of capacity. Storage in the major upper basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero, decreased by 1,394 acre-feet overall during January and are also at 75% of capacity. The Natural Resources Conservation Service reports that February 1 snowpack is 65% of normal, the lowest statewide. Flow at the gaging station South Platte River at Kersey was 660 cfs, as compared to the long-term average of 838 cfs.

Outlook

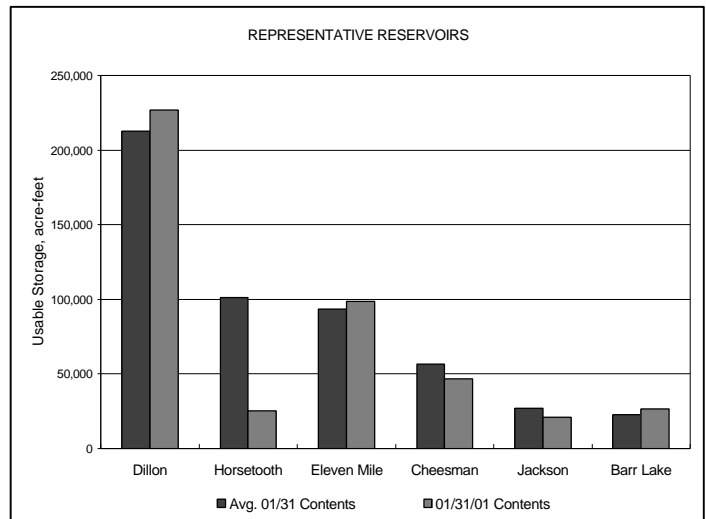
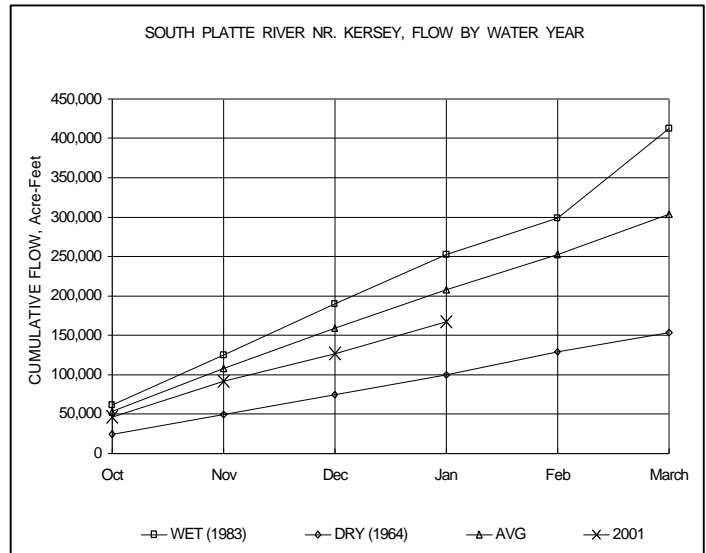
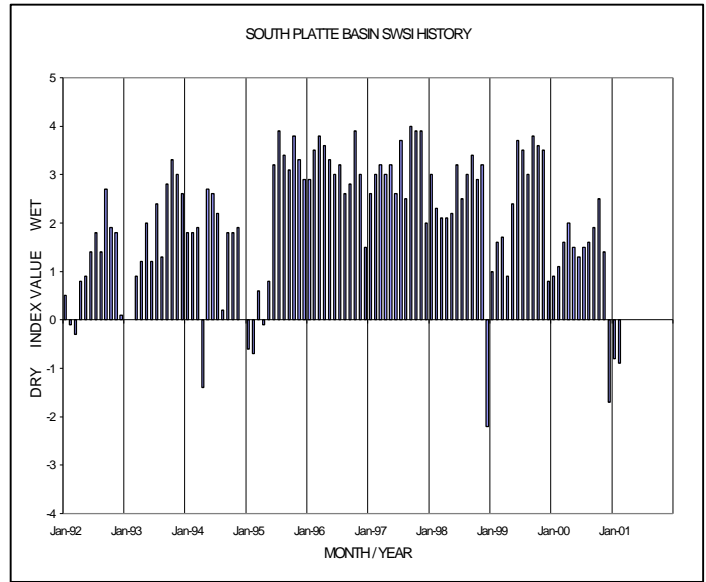
The main use of water continues to be for filling reservoirs in January. It appears now that all of the major reservoirs on the mainstem will fill including the largest, North Sterling, which is still approximately two months from filling. It is also likely most of the major reservoirs on the tributaries will fill. In addition to municipal diversions, the other main use in the basin is for recharge. This use will increase even more in the next month or two as the weather get warmer.

Administrative/Management Concerns

Division 1 continues to be concerned that there is adequate recharge to provide augmentation supplies and maintain flows in the river during next summer. In this regard, the State Engineer and staff have been meeting with users to encourage recharge whenever weather conditions permit.

Public Use Impacts

None.



Basinwide Conditions Assessment

The SWSI value of -1.5 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 72% of normal. Flow at the gaging station Arkansas River near Portland was 399 cfs, as compared to the long-term average of 354 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 115% of normal as of the end of January.

Outlook

Available storage capacity remains adequate in the basin to compliment normal to above normal runoff. The river call on the mainstem of the Arkansas remains March 1, 1910, through the Winter Water Storage Program period which ends on March 14, 2001.

Administrative/Management Concerns

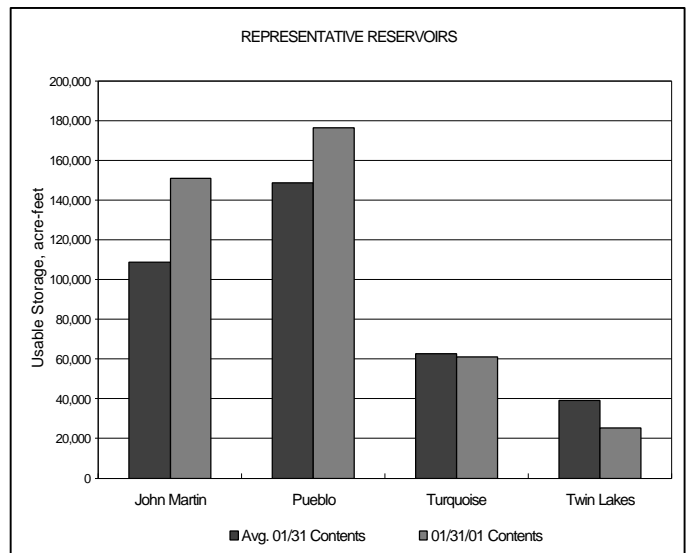
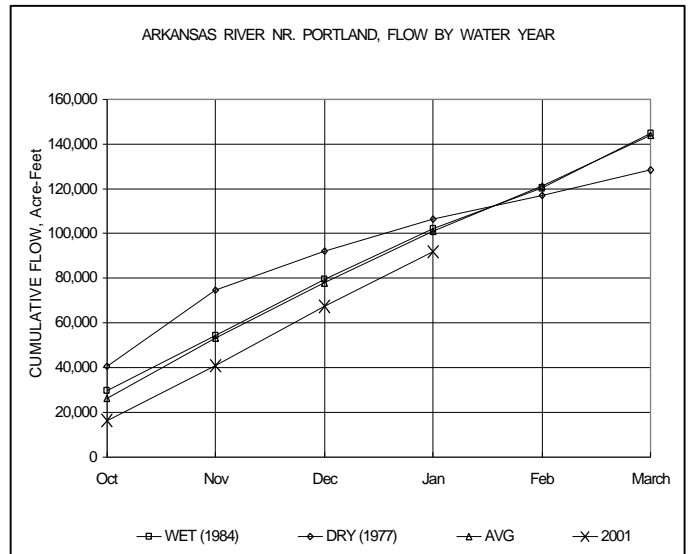
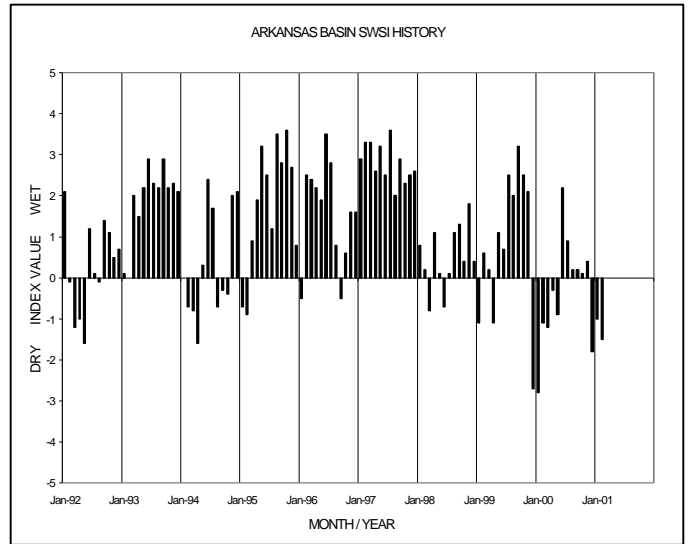
Winter Water Storage Program for the period November 15, 2000 through January 31, 2001 is 18,000 acre-feet lower when compared to last year at this time and 4,750 acre-feet lower than the five-year moving average.

March 1 is the deadline for submitting well pumping replacement plans under the Arkansas River Rules & Regulations for ground water usage, with April 1 as the deadline for their approval.

Public Use Impacts

The Southeastern Colorado Water Conservancy District held a meeting in La Junta in January to discuss their Preferred Storage Options plan and Winter Water spill credits.

The Purgatoire River Water Conservancy District is nearing completion of a system canal loss study and an irrigated acreage verification study.



Basinwide Conditions Assessment

The SWSI value of 0.8 indicates that for January the basin water supplies were near normal. The Natural Resources Conservation Service reports that February 1 snowpack is 92% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 140 cfs (74% of normal). The Conejos River near Mogote had a mean flow of 41 cfs (85% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 87% of normal as of the end of January.

Precipitation in Alamosa was 0.33 inches, 0.07 inches above normal. Temperatures ranged from -21°F to 50°F in Alamosa where the average monthly temperature was 14.8°F, 0.1 degrees above normal.

Residents of the San Luis Valley are experiencing more “normal” conditions this winter. As January came to a close, snowpack in the mountains climbed back to near-normal levels, a welcome reversal of conditions from the past few years. Bitter cold temperatures followed those days with substantial snowfall on the valley floor.

Outlook

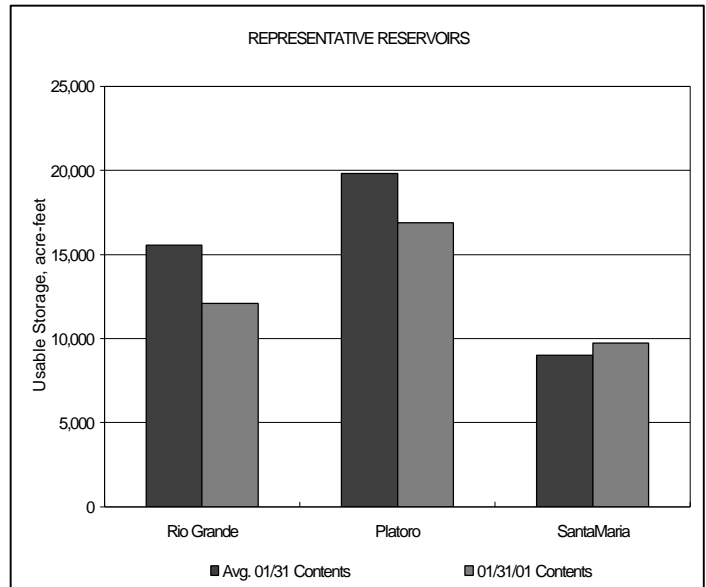
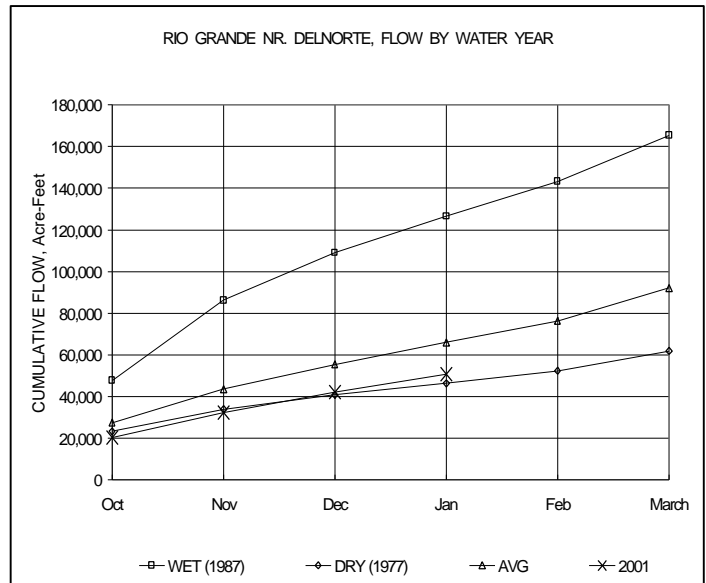
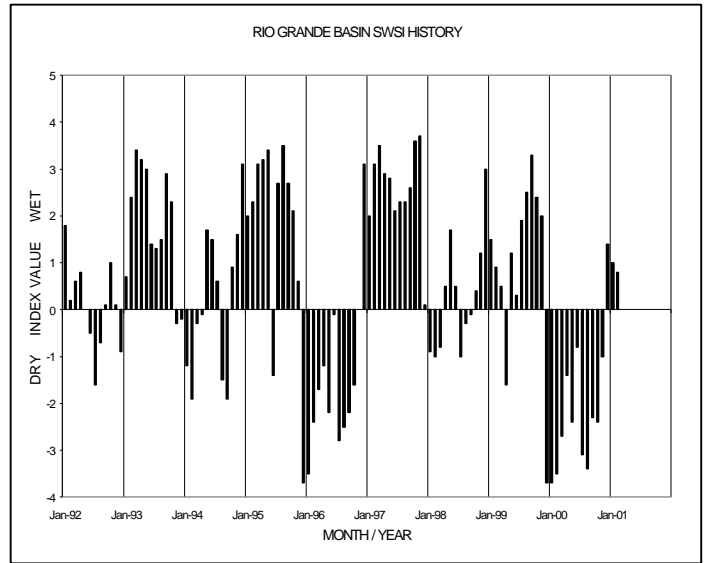
With the highest basin snowpack in the state, local water administrators ought to be pleased. With the exception of Culebra Creek near the Colorado/New Mexico border (130% of average), the Natural Resources Conservation Service stream flow forecasts are predicting runoff in area streams to be in the range of 92 to 106% of average during the 2001 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 2000 season and plan for the upcoming irrigation season.

Public Use Impacts

Other than increased icing problems due to the cold temperatures, area water users and winter sports enthusiasts are enjoying the wintry conditions.



Basinwide Conditions Assessment

The SWSI value of -1.8 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 78% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 49.3 cfs, as compared to the long-term average of 43.6 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 92% of normal as of the end of January.

Outlook

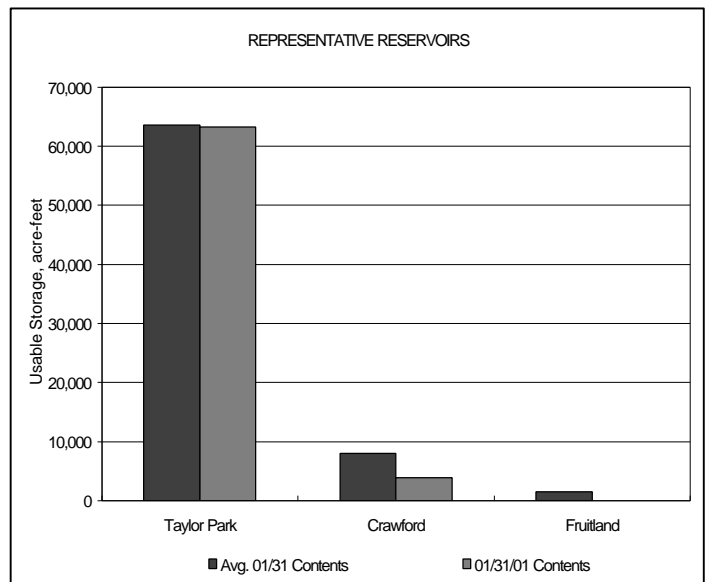
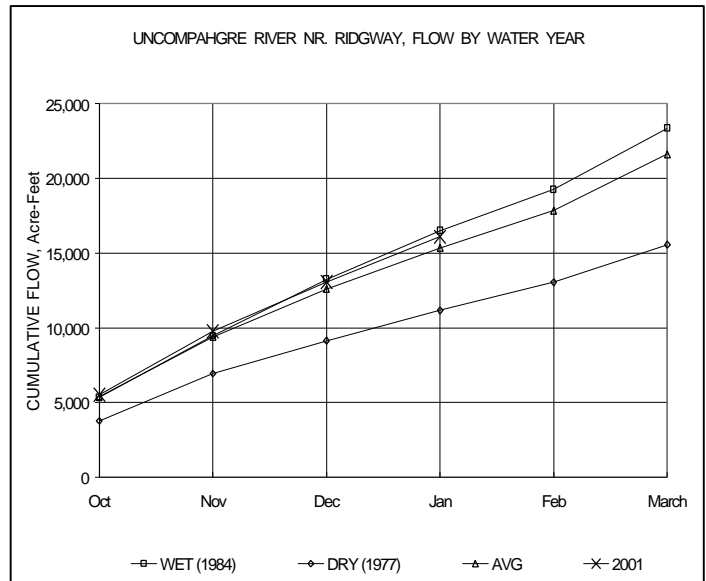
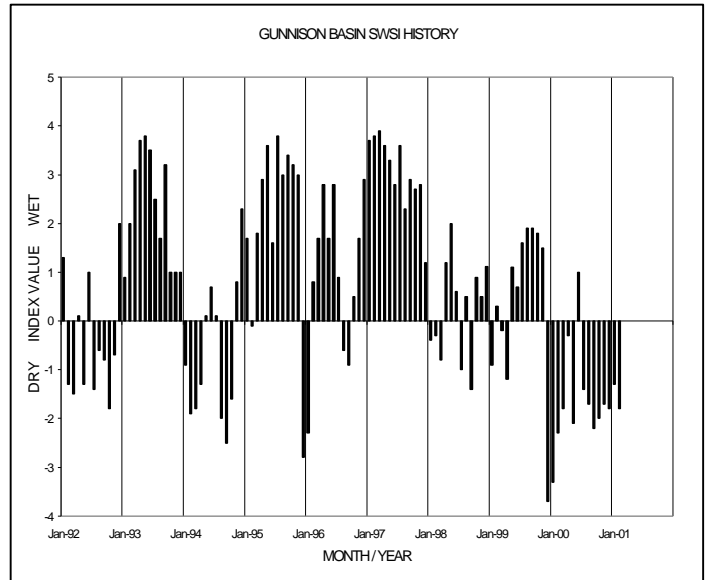
For the first month of this year the snowpack totals are again looking pretty grim. The absence of low elevation snow last year created a lack of early run-off. This scenario is repeating itself so far this year. If this trend continues, it will certainly put an increased strain on the entire system.

Administrative/Management Concerns

This time of year is normally quiet with the exception of the entering of the diversion records. A relatively new system of heating and cooling has been generating immediate attention from us from a ground water standpoint. It involves geothermal closed-loop heating/cooling systems. Several drillers have entered this arena and the State Engineer's Office has created a new policy addressing the drilling of wells for this use and the certification of non-state licensed contractors to drill the boreholes for these systems.

Public Use Impacts

Some areas are having a very difficult time keeping stock water flowing as there is too little snow and too much ice. The Crested Butte area is suffering from low snow levels for insulation purposes. With the extreme cold and lack of snow they are having difficulties with water and sewer lines freezing and breaking.



Basinwide Conditions Assessment

The SWSI value of -2.3 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 82% of normal. Flow at the gaging station Colorado River near Dotsero was 1,084 cfs, as compared to the long-term average of 968 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 86% of normal as of the end of January.

Outlook

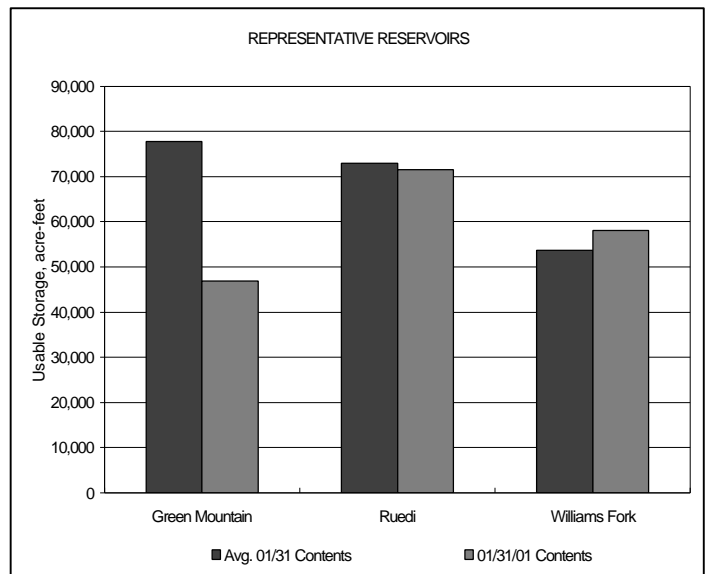
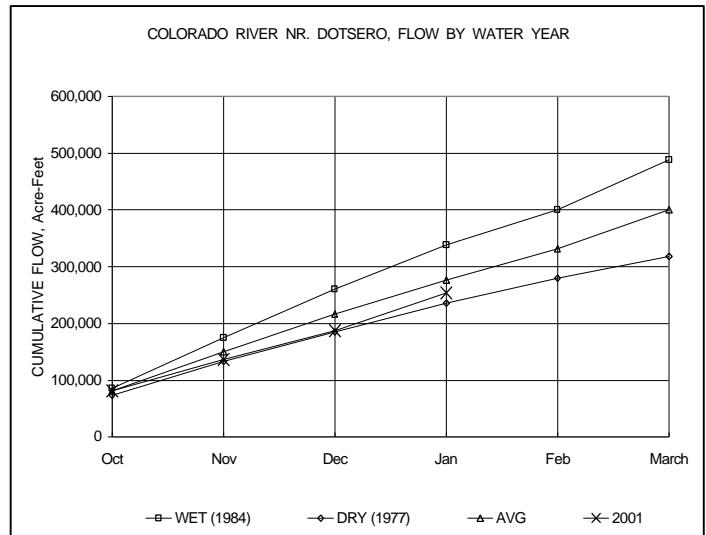
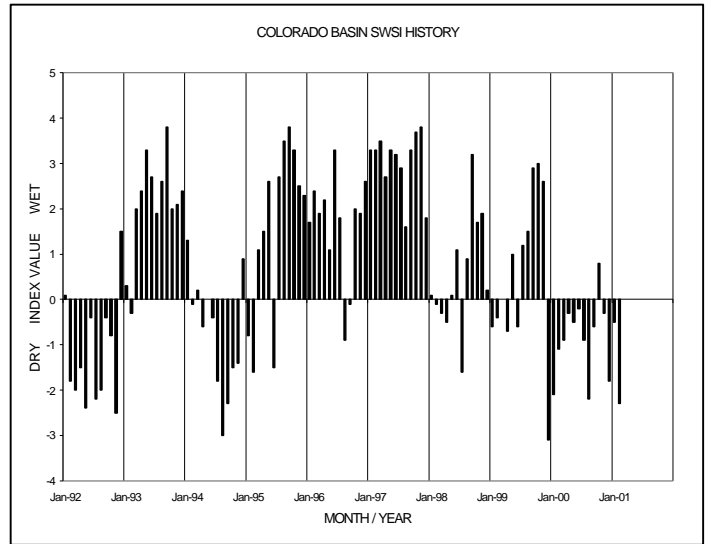
January precipitation was only about 50% of average for the Colorado River basin. By mid-February, snowpack was about 80% of average for the entire basin, but western areas, particularly the Grand Mesa, were much further below average.

Administrative/Management Concerns

The senior Shoshone call is expected to remain on throughout the winter.

Public Use Impacts

None.



Basinwide Conditions Assessment

The SWSI value of -2.0 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 81% of normal. Flow at the gaging station Yampa River at Steamboat was 99.7 cfs, as compared to the long-term average of 92.6 cfs.

January was a cold, dry month throughout the basin. The average precipitation for January was only about 40% of average at the higher elevations. As a result, the average snowpack decreased significantly by the end of the month. On the North Platte drainage the snowpack was down to 75% of average versus 90% on January 1 and for the Yampa and White River it was 81%, down from 100%. On the Little Snake River the snowpack is about 76% of average.

Outlook

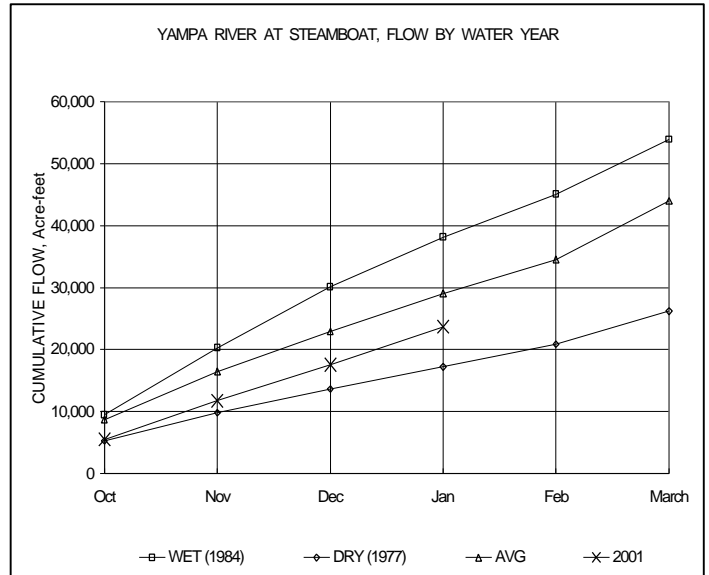
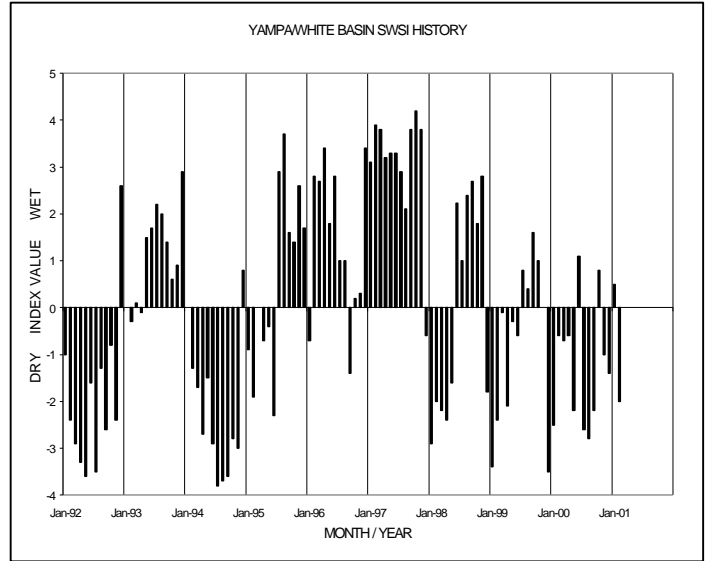
The February 1st predictions for the most probable spring runoff, based on current conditions, are 70% of average for the North Platte River near Northgate, 79% of average for the White River near Meeker and 78 % of average for the Yampa River near Maybell. These predictions are down significantly from the January 1 forecast.

Administrative/Management Concerns

None at this time; however, continued dry conditions could result in a repeat of last year's prolonged administration on rivers and streams within the Division.

Public Use Impacts

None.



Basinwide Conditions Assessment

The SWSI value of -0.6 indicates that for January the basin water supplies were near normal. The Natural Resources Conservation Service reports that February 1 snowpack is 91% of normal. Flow at the gaging station Animas River near Durango was 204 cfs, as compared to the long-term average of 210 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 75% of normal as of the end of January.

January 2001 was a fairly dry month with much of the precipitation not arriving until the end of the month. This brought the snow courses back to normal. The La Plata Mountains appear to have the best snow in the area, more than 120% of normal. These would be some of the best reports in the state currently. The Dolores/San Miguel area are showing the worst supply at present.

Temperatures were about average for the highs and 4°F warmer than normal for the lows. The coldest temperature in Durango occurred on January 31, -1°F.

Streams were running about the typical average flows and reservoirs remained essentially the same with Lemon reservoir and Red Mesa Reservoir being in serious need of a good runoff this spring.

Outlook

Lower level snow has greatly increased the soil moisture content and promises to provide some early runoff to the lower reservoirs and out of state.

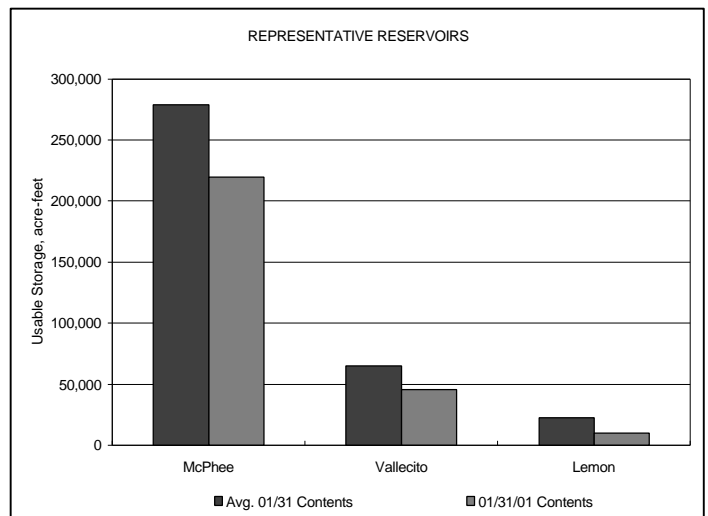
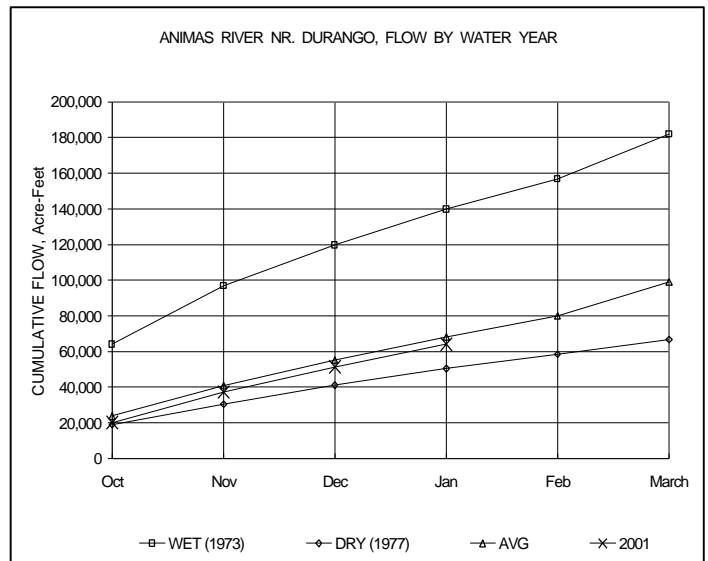
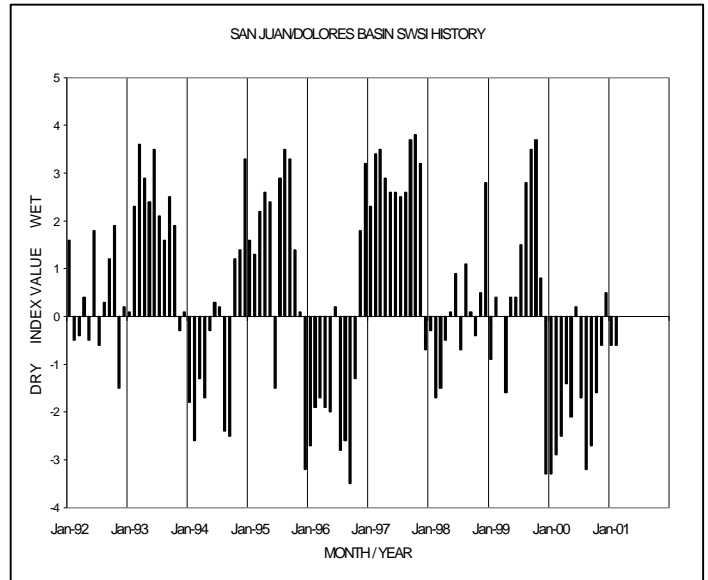
Weather appears favorable to continue producing some precipitation. Prospects are good for at least a normal runoff year with the continued weather patterns that have been observed to date.

Administrative/Management Concerns

None.

Public Use Impacts

Ski areas have some of the best conditions of recent years.



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