
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
 ROOM 818, 1313 SHERMAN ST., DENVER, CO 80203
 303-866-3581; www.water.state.co.us

December 1, 2001

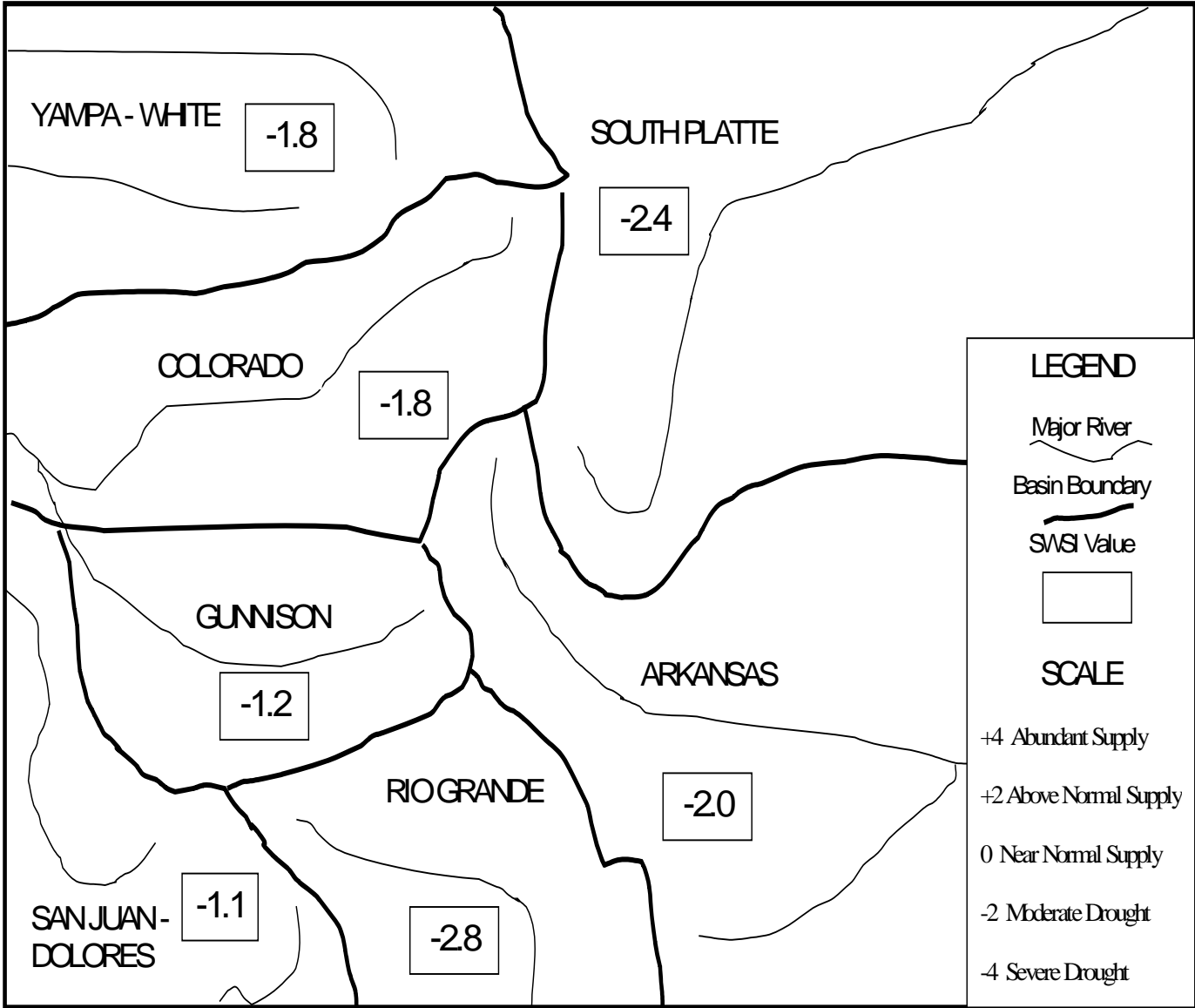
This month begins the winter Surface Water Supply Index (SWSI) calculation. In the winter, the SWSI calculation takes into account the regional snowpack in replacement of stream flows. The SWSI Index was below normal in all divisions across the state during November. Reservoir index factors and snowpack factors were both below normal averages for this time of the year. The snowpack ranged from 44% of average in the Rio Grande Basin to 79% of average in the Gunnison Basin.

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 December 1, 2001, and reflect the conditions during the month of November.

<u>Basin</u>	<u>Dec 1, 2001 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	-2.4	-2.8	-0.7
Arkansas	-2.0	-1.5	-0.2
Rio Grande	-2.8	-0.9	-4.2
Gunnison	-1.2	1.0	0.6
Colorado	-1.8	-0.5	0.0
Yampa/White	-1.8	-0.1	-0.4
San Juan/Dolores	-1.1	1.5	-1.6

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



December 1, 2001

Basinwide Conditions Assessment

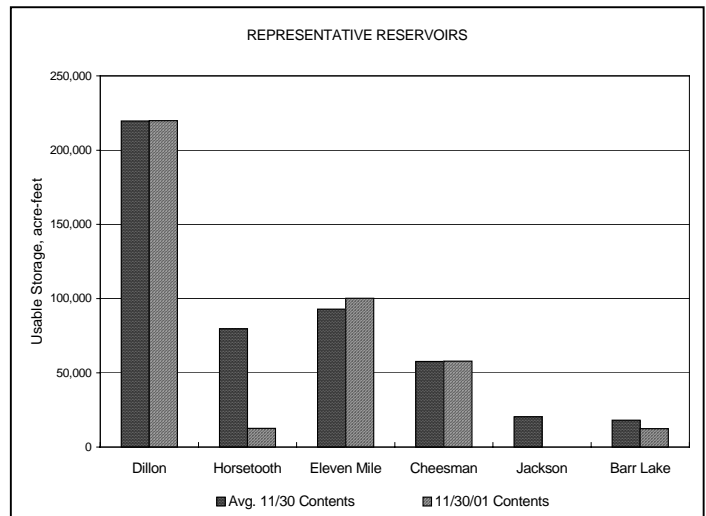
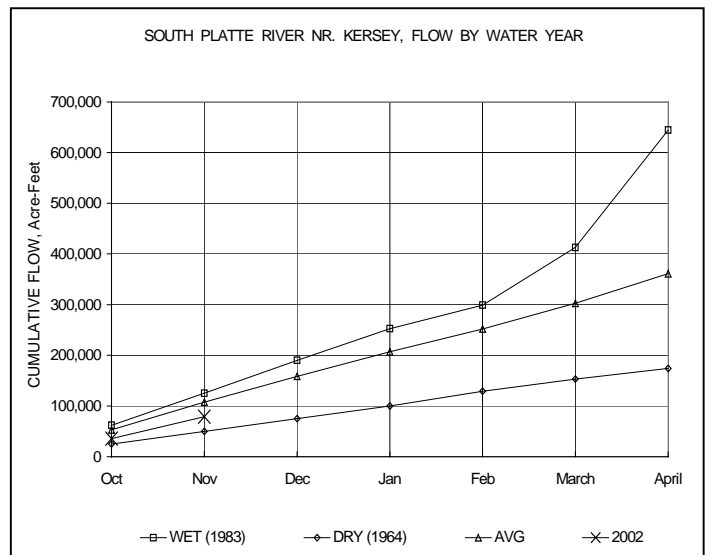
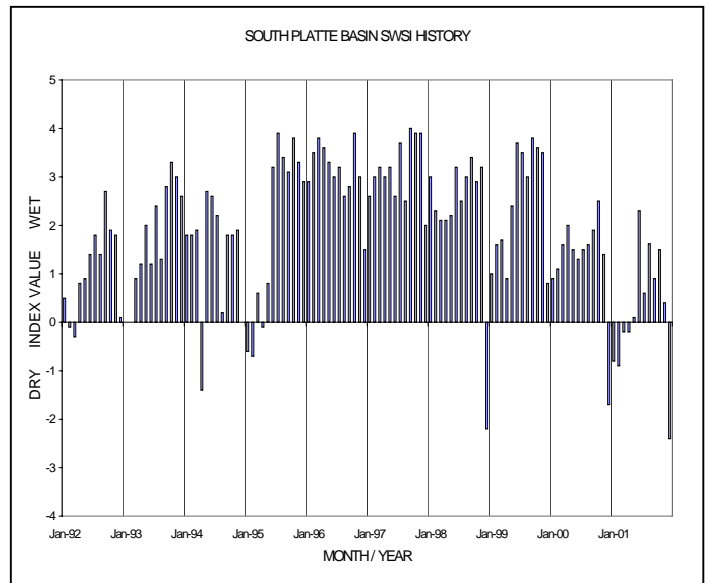
The SWSI value of -2.4 indicates that for November the basin water supplies were below normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 83% of normal as of the end of November. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 47% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 82% of capacity. The Natural Resources Conservation Service reports that December 1 snowpack is 52% of normal. Flow at the gaging station South Platte River near Kersey was 728 cfs, as compared to the long-term average of 950 cfs. Flow at the Colorado/Nebraska state line averaged 210 cfs.

Outlook

Even though overall reservoir storage is less than average and conditions have generally been dry the last month, there is not a large concern about filling reservoirs at this time. One concern is the low levels of reservoirs associated with the Colorado Big Thompson project, a major source of supplemental supply for the South Platte Basin. Unlike each year in the past eight years, the storage in this transbasin system is far below average for this time of year. While it is unlikely that low storage conditions would effect the quota from this project this coming year, a long term dry period potentially could impact supplies from this project.

Administrative/Management Concerns

Reservoir storage continued in November for the plains reservoirs on the South Platte. In addition to storage, there was continued recharge on the plains. Unlike last year, there was no call for storage on the mainstem downstream of Denver as the new water year began in November. The Barr Lake call was placed for diversions through the Burlington ditch north of Denver, which is typical for this time of year.

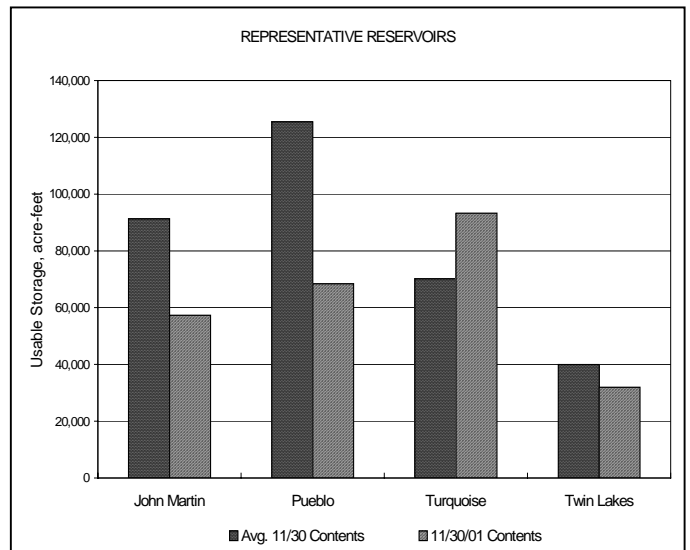
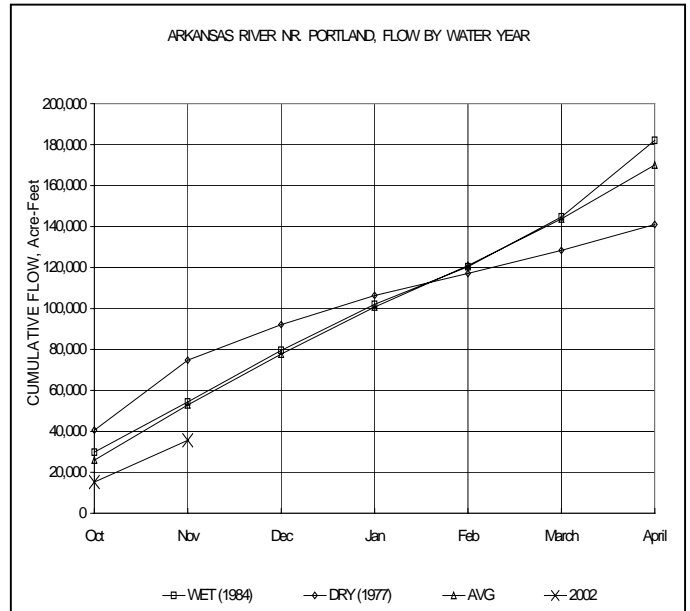
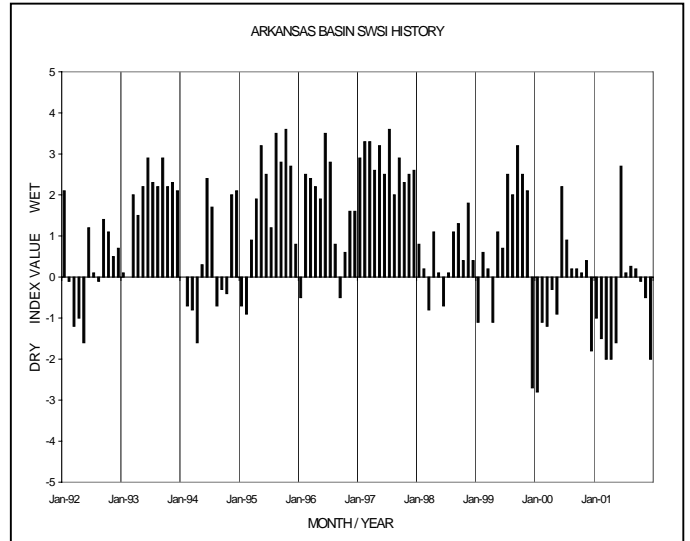


Basinwide Conditions Assessment

The SWSI value of -2.0 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that December 1 snowpack is 60% of normal. Flow at the gaging station Arkansas River near Portland was 343 cfs, as compared to the long-term average of 453 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 77% of normal as of the end of November.

Outlook

Winter Compact storage began in John Martin Reservoir on November 1, 2001. The Pueblo Winter Water Program began operation on November 15, 2001 with storage taking place in both Pueblo and John Martin Reservoirs and several off-channel locations. Participants in storage programs are anxious to replenish stored water supplies that were greatly reduced during the past irrigation season. River flows available for storage have so far been fairly low compared to previous years.



Basinwide Conditions Assessment

The SWSI value of -2.8 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that December 1 snowpack is 44% of normal. Flow at the gaging station Rio Grande near Del Norte was 188 cfs, as compared to the long-term average of 270 cfs. The Conejos River near Mogote had a mean flow of 45 cfs (46% of normal). In general, stream flow in the basin remained below normal due to the lack of significant precipitation since August. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 80% of normal as of the end of November. Precipitation during November in Alamosa was 0.26 inches, 0.17 inches below normal.

Outlook

Winter didn't really hit the San Luis Valley until the day after Thanksgiving. A snowstorm blanketed the valley floor that day and the mercury hasn't climbed above 40 degrees since. Temperatures are expected to dip below zero whenever a layer of snow is present. The first part of November was very mild, with clear skies, warm temperatures and low wind. As pleasant as that may be for area residents, the resultant lack of snowpack in the higher elevations doesn't bode well for winter sports enthusiasts.

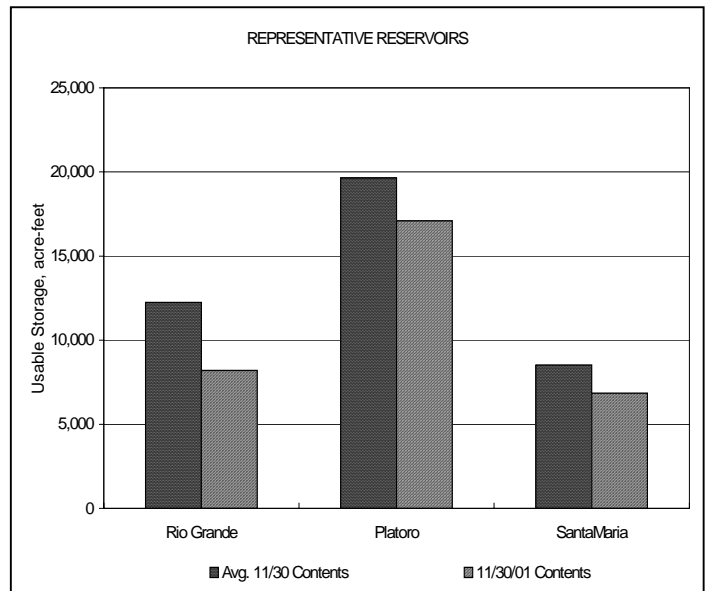
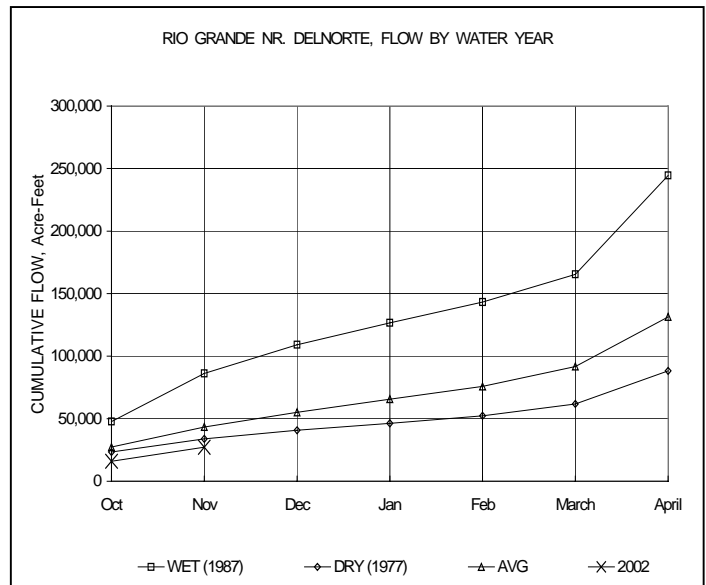
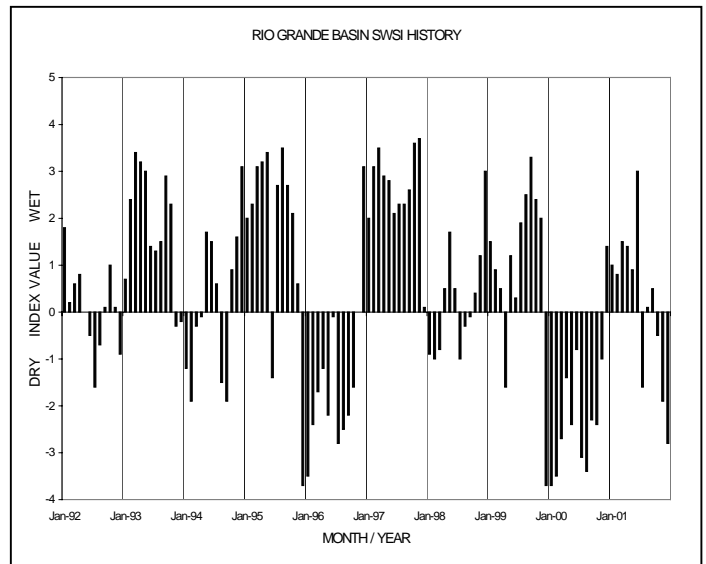
Administrative/Management Concerns

Approximately 6,600 acre-feet were diverted during November into the Rio Grande ditches that were party to the 79CW91 recharge decree. This valuable decree allows administrators the option to divert water from the river after November 1st to replenish the aquifers of the upper basin. A recent application to Water Court is seeking to add two ditches to the six already granted this right.

Water users on the Conejos River and its tributaries continued to divert water for irrigation and recharge purposes well into November. The delivery requirements for the Conejos and the Rio Grande should be met or exceeded this year.

Public Use Impacts

Outdoor activities not dependent on snowfall continue to prosper as the warm and dry autumn continued through Thanksgiving.



Basinwide Conditions Assessment

The SWSI value of -1.2 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that December 1 snowpack is 79% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 49.1 cfs, as compared to the long-term average of 67.3 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 93% of normal as of the end of November.

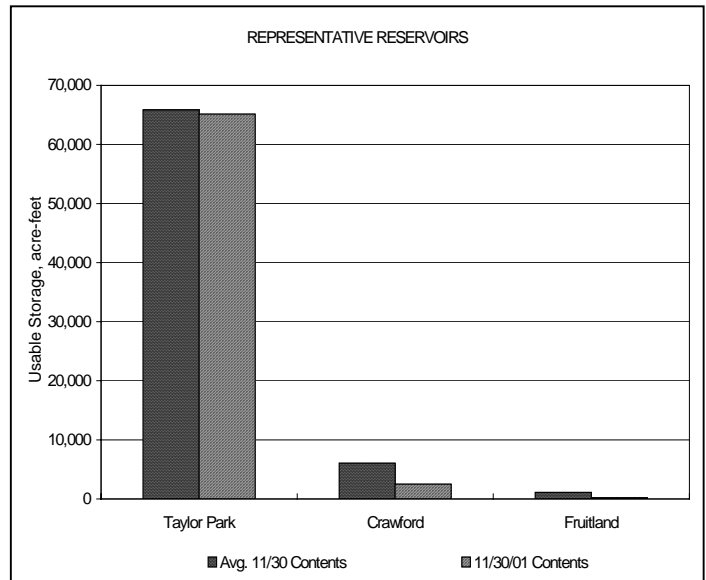
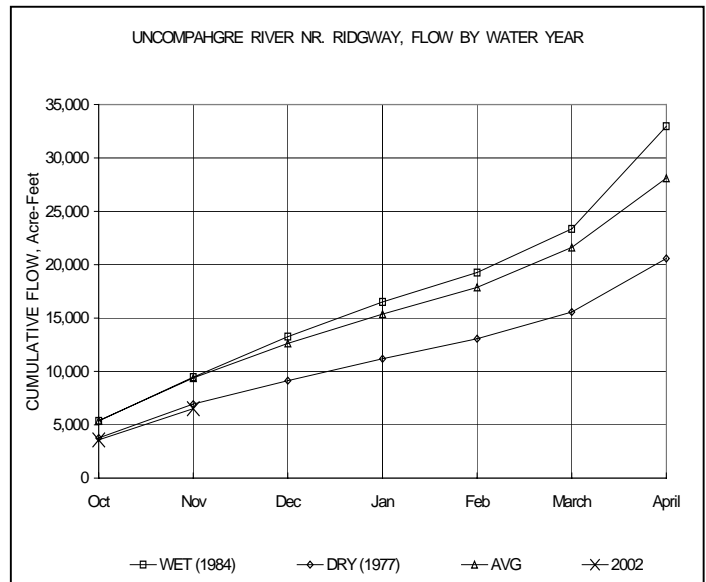
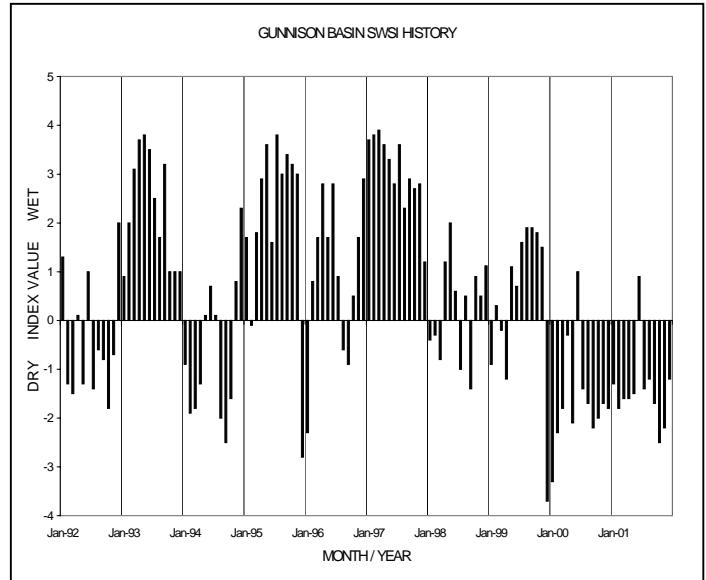
Outlook

Snowpack in the northern part of the division is good, but the snowpack is light in the southern part, which is the opposite of most past years. Slumgullion is 65% of average, a contrast to past years when other areas had a light snowpack and Slumgullion had a higher snowpack percentage.

Administrative/Management Concerns

The Division 4 office welcomed a new Program Assistant on December 3rd. Our office will benefit particularly well in technology skills with this addition to our staff.

Personnel administering water in the North Fork of the Gunnison drainage continue to closely monitor storage water on the Grand Mesa. The increase of development in the North Fork area is reducing the irrigated acreage, causing concern for area water companies. A recent request was made to the division office to refrain from issuing new well permits because new developments have reduced the ground water supply to a record low. One water company was forced to initiate water restraints for the first time in fifty years. The increased growth and another dry year have caused great concern for local residents.



Basinwide Conditions Assessment

The SWSI value of -1.8 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that December 1 snowpack is 75% of normal. Flow at the gaging station Colorado River near Dotsero averaged 810 cfs for the month, as compared to the long-term average of 1,162 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 82% of normal as of the end of November.

Outlook

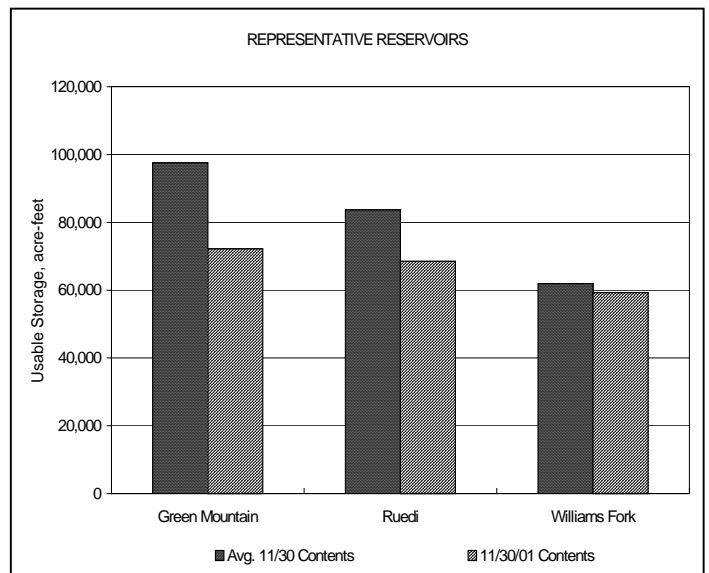
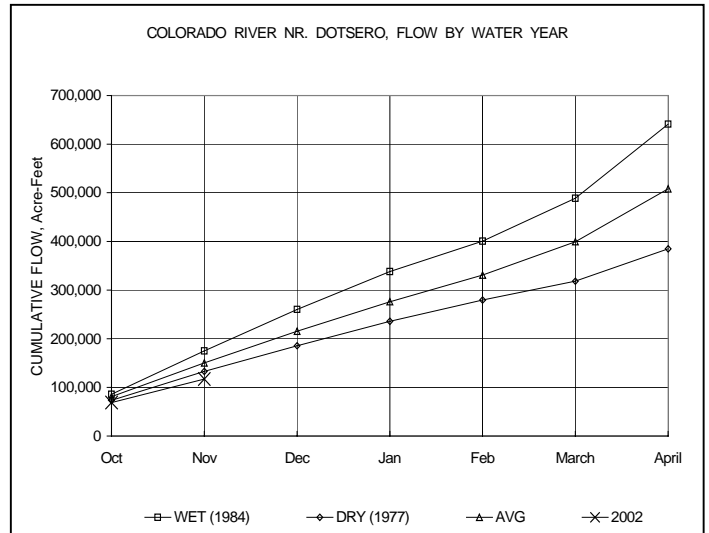
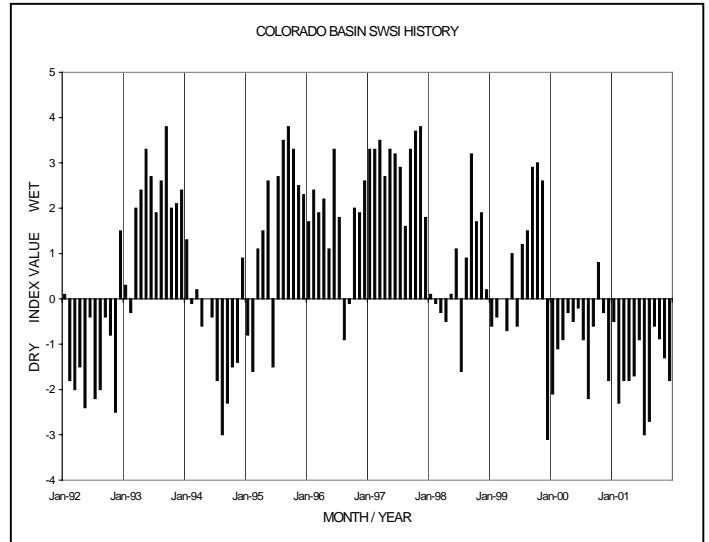
A few areas such as Fremont/Vail Passes and McClure/Schofield Passes are at or above average snowpack for this time of year; however, others are significantly lower than average. The climate forecast into December indicates near normal precipitation for the month.

Administrative/Management Concerns

The senior Shoshone power call was off from November 25 to December 4 for turbine maintenance at the power plant in Glenwood Canyon, allowing upstream junior users to use water in priority. Several reservoirs including Williams Fork and Green Mountain had been drawn down below average this year and were able to store water during this period.

Public Use Impacts

Free river conditions at the end of November caused the Colorado River to drop to near record low levels as measured at Dotsero (approximately 350 cfs on 11/30) and below Glenwood Springs (approximately 640 cfs on 11/30).



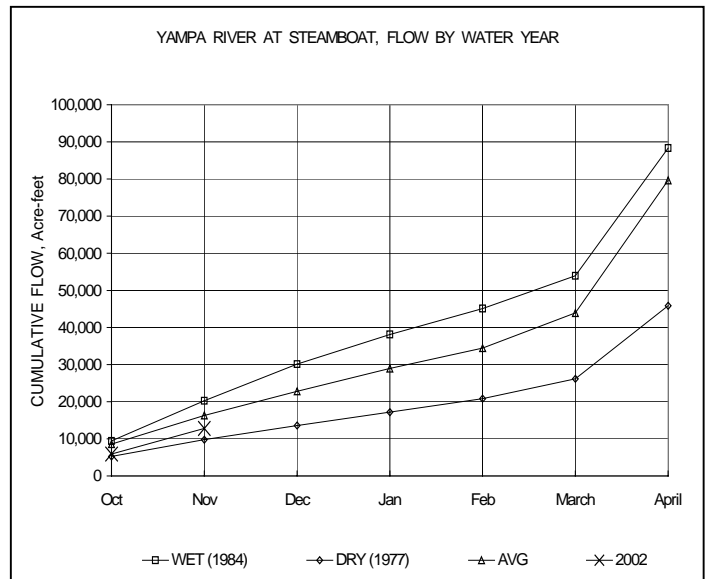
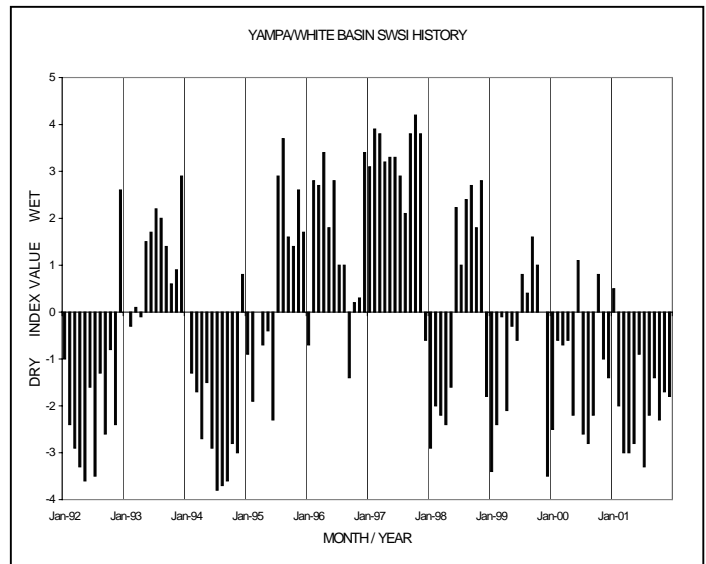
Basinwide Conditions Assessment

The SWSI value of -1.8 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that June 1 snowpack is 67% of normal. Flow at the gaging station Yampa River at Steamboat was 116 cfs, as compared to the long-term average of 129 cfs.

Winter finally arrived in Division 6 on Thanksgiving Day. For most of the month the basin experienced dry conditions with above normal temperatures. On Thanksgiving Day the snow arrived, and by the end of the month the snow pack was about 60% of average. Precipitation for the basin was 80% of average for the month. While not a tremendous start to winter, the end-of-month snowfall brought hopes that the recent drought cycle may be showing signs of ending. All of the reservoirs in the Division are now in storage.

Public Use Impacts

Winter sports are in full swing with the ski hills open and adequate snow for snowmobiles and snowshoe recreation.



Basinwide Conditions Assessment

The SWSI value of -1.1 indicates that for November the basin water supplies were below normal. The Natural Resources Conservation Service reports that December 1 the snowpack was 63% of normal. Flow at the gaging station Animas River near Durango was 179 cfs, as compared to the long-term average of 287 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 75% of normal as of the end of November.

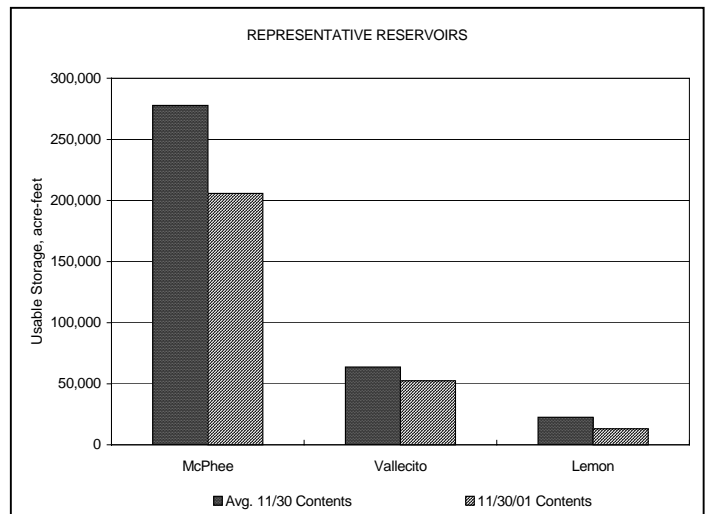
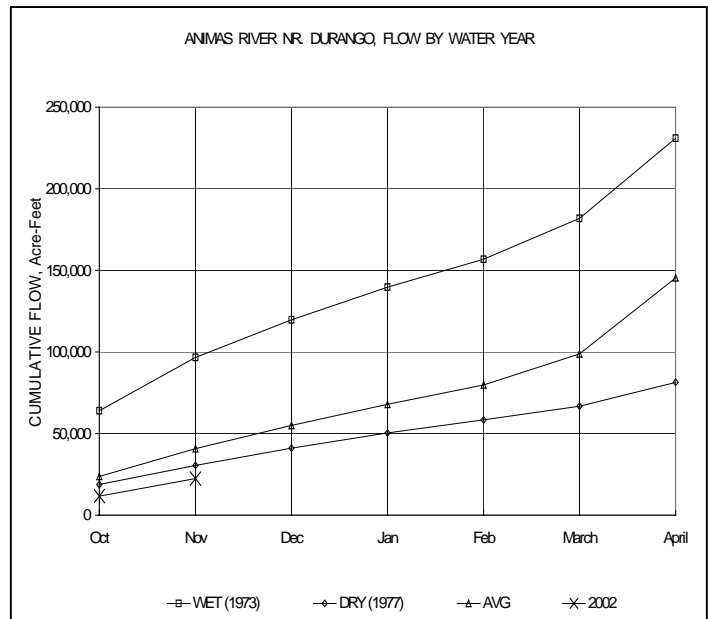
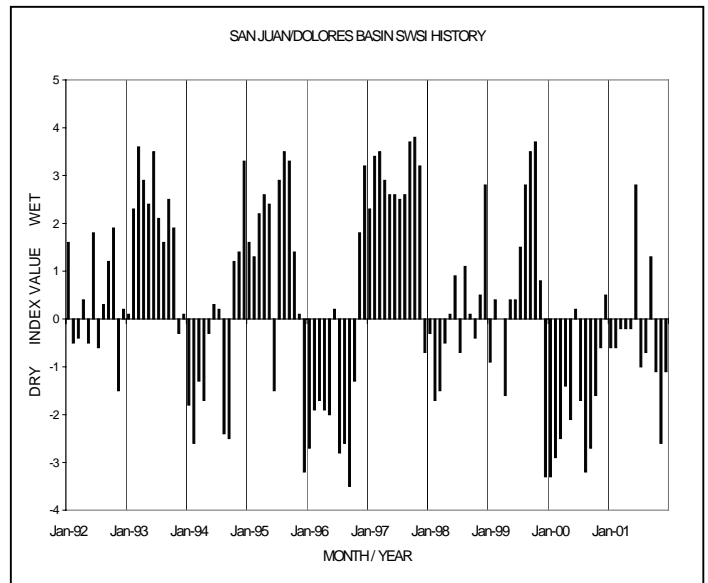
Outlook

November began with a continuation of the dry weather experienced in September and October. Many river flows diminished to very low base levels. The Animas River average was only 179 cfs and the La Plata receded to a 5.3 cfs daily flow when 20% more than that would have been much more typical for a dry condition of flow.

Around Thanksgiving week, a break in the weather yielded a total of 1.5 inches of moisture for the month. This was still below the normal of 1.93 inches. Temperatures reduced to single digits during the last week as the dry snowfall remained on the ground. Reservoirs remained about the same as last month. Only Vallecito was able to show normal storage amounts for this time of year.

Public Use Impacts

There was some hope that the weather would continue the pattern of the last week and the local ski areas could open with the possibility of an adequate snow accumulation to carry in to 2002.



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