
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
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February 1, 2002

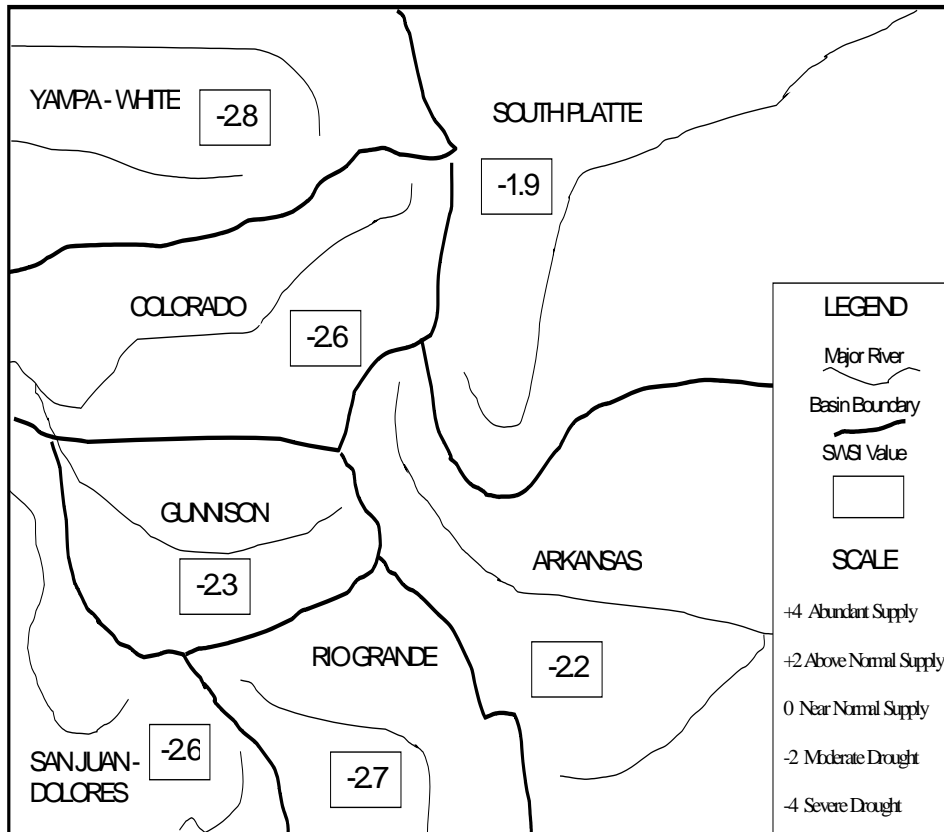
The Surface Water Supply Index (SWSI) for January presents a bleak outlook statewide. With a range of -4 to +4, the basins in Colorado are between a high of -1.9 for the South Platte Basin and a low of -2.8 for the Yampa/White Basin. Snowpack is the major component to the SWSI this time of year, and the snowpack for January averaged only 58% of normal for the state. The low snowpack for Colorado was recorded in the Rio Grande Basin at 48% of normal, the high was recorded in the Colorado Basin at 70% of normal. Some division offices are alerting the public to possible shortages of water this summer through press releases and public meetings.

The SWSI Index 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, 2002, and reflect the conditions during the month of January.

<u>Basin</u>	<u>February 1, 2002 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	-1.9	-0.3	-1.0
Arkansas	-2.2	-0.4	-0.7
Rio Grande	-2.7	-0.6	-3.5
Gunnison	-2.3	-2.9	-0.5
Colorado	-2.6	-1.3	-0.3
Yampa/White	-2.8	-1.0	-0.8
San Juan/Dolores	-2.6	-1.0	-2.0

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, 2002

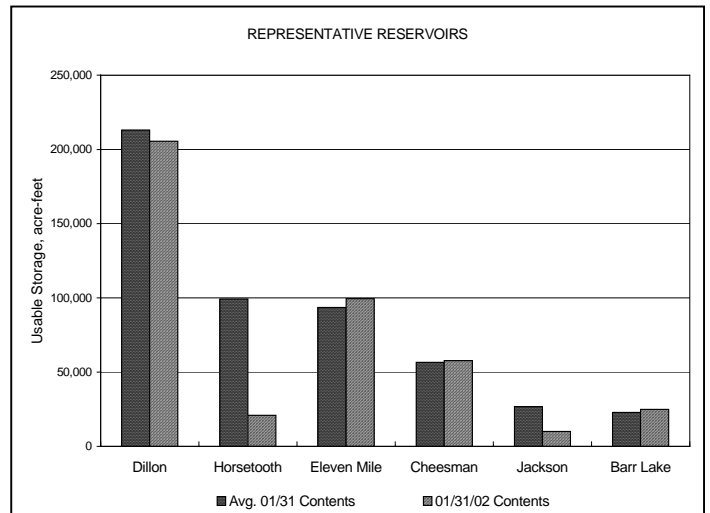
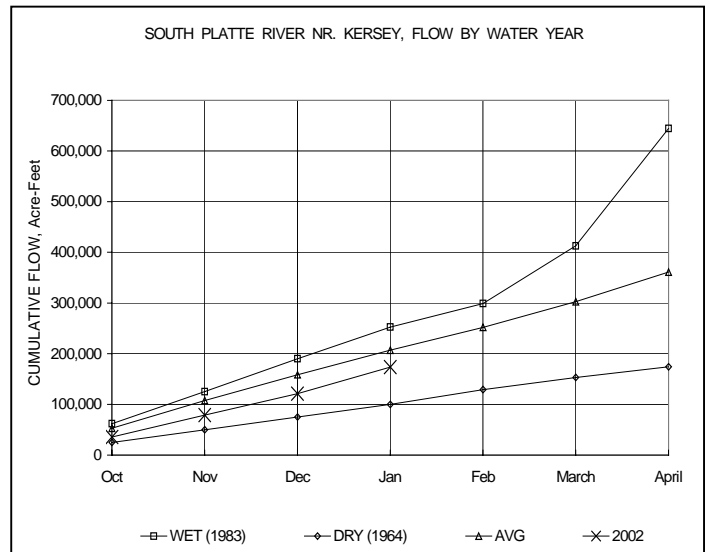
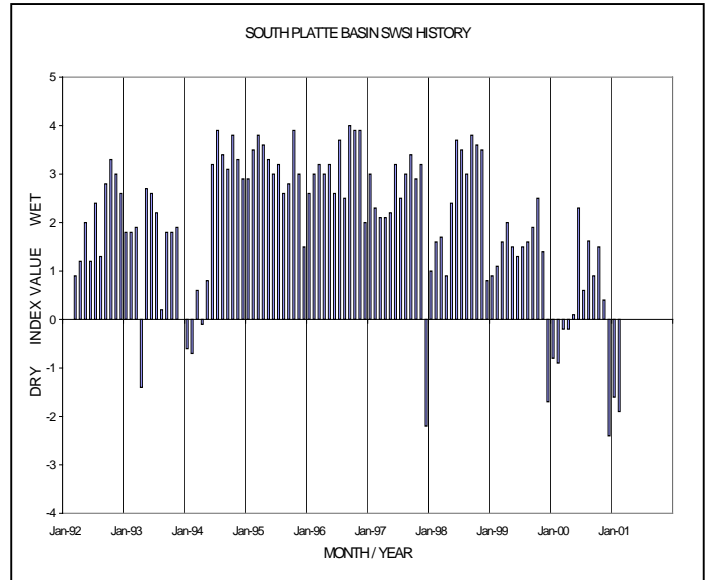
Basinwide Conditions Assessment

The SWSI value of -1.9 indicates that for January the basin water supplies were below normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 82% of normal as of the end of January. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 72% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 81.6% of capacity. The Natural Resources Conservation Service reports that February 1 snowpack is 49% of normal. Flow at the gaging station South Platte River near Kersey was 609 cfs, as compared to the long-term average of 852 cfs. Flow at the Colorado/Nebraska state line averaged 273 cfs.

Outlook

Reservoir storage continued in January for the plains reservoirs, with the most reservoirs on the plains reaching their winter storage levels. Of note, over 9,000 acre-feet was stored in Jackson Reservoir during January. The reservoir had been evacuated for maintenance of the dam and began filling again in January. The 9,000 acre-feet is approximately 50% of the winter safe storage level of this reservoir. Thus, it appears all the major reservoirs on the plains and along the tributaries will fill this winter.

Filling reservoirs is very important, as snow pack is only approximately 50% throughout the basin. The longer snow pack falls significantly below average, the more concern for next year's water supply. Without average snowfall the next couple of months, there could be shortages for some irrigation users without wells or reservoir water to supplement direct flow surface diversions. Municipal suppliers have a higher safety factor. With the exception of a few small suppliers, there is not a concern about adequate municipal supplies for this summer.



Basinwide Conditions Assessment

The SWSI value of -2.2 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 58% of normal. Flow at the gaging station Arkansas River near Portland was 365 cfs, as compared to the long-term average of 374 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 78% of normal as of the end of January.

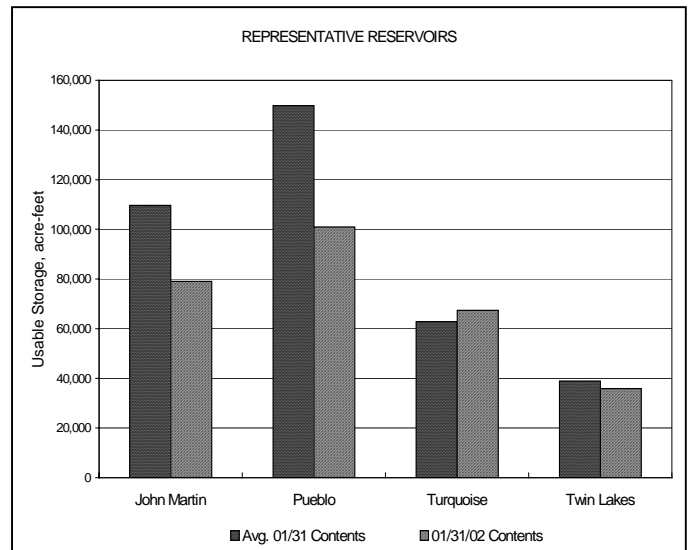
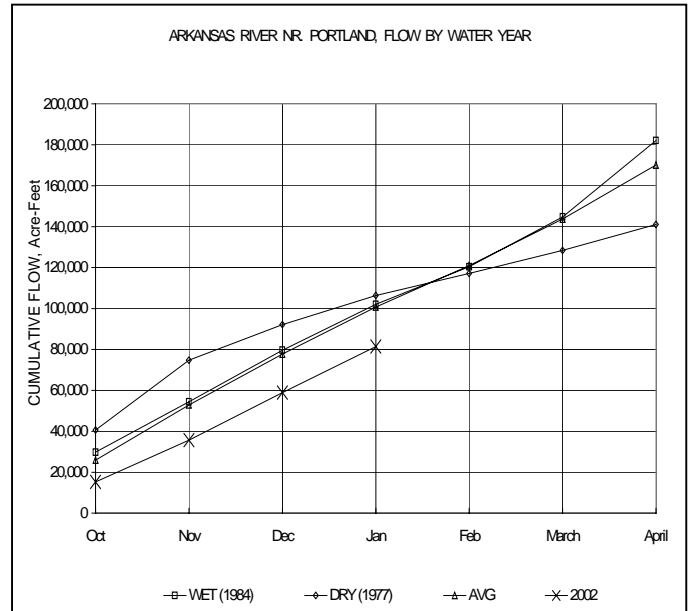
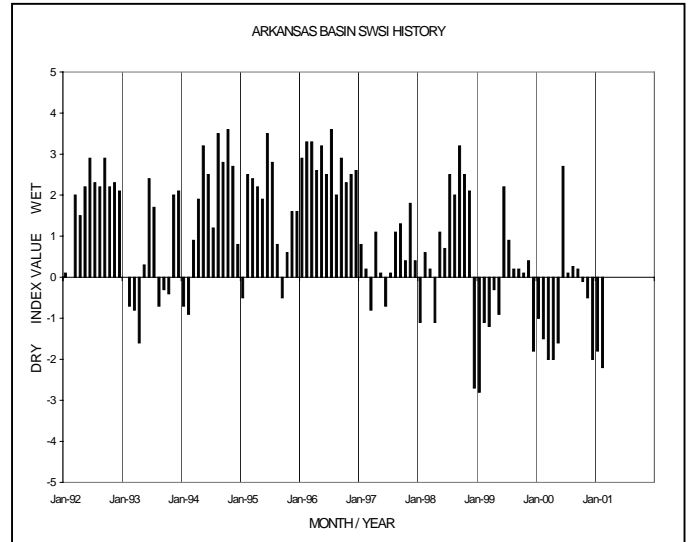
Administrative/Management Concerns

Reservoir storage continues to accrue at a frustratingly slow rate for the major winter storage programs. The Pueblo Winter Water Program lagged behind last year's year-to-date storage by about 10% and behind the average for the previous five-year period by about 12%. Conservation storage in John Martin Reservoir has only achieved approximately 60% of the amount stored during the comparable conservation storage period last year.

Press releases were developed during January to alert well owners of the potential for reduced augmentation supplies and to encourage dry-year planning for the 2002 irrigation season. Workshops will be held in La Junta and Pueblo in early March to present alternatives in a year of potentially reduced well pumping.

Public Use Impacts

Meetings to discuss draft versions of the Rules Governing the Arkansas River Water Bank Pilot Project have elicited more active responses as water rights owners begin to review the proposed rules more closely. Revisions to the draft rules are beginning to be shaped by the good public feedback received by the State Engineer.



Basinwide Conditions Assessment

The SWSI value of -2.7 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 48% of normal, the lowest in the state. Flow at the gaging station Rio Grande near Del Norte was 166 cfs, as compared to the long-term average of 171 cfs. The Conejos River near Mogote had a mean flow of 36 cfs (76% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 80% of normal as of the end of January.

The precipitation and average temperature in Alamosa were slightly above the historic average during January. Two significant snowstorms dropped snow on the valley floor during January causing temperatures to plummet below zero. It seems as if the valley is getting more snowfall than the mountains this winter.

Outlook

With the lowest basin snowpack in the state, local water administrators are warning users of a possible drought. Forecasts are predicting area stream flow in 2002 to be in the range of 40% to 61% of normal.

Administrative/Management Concerns

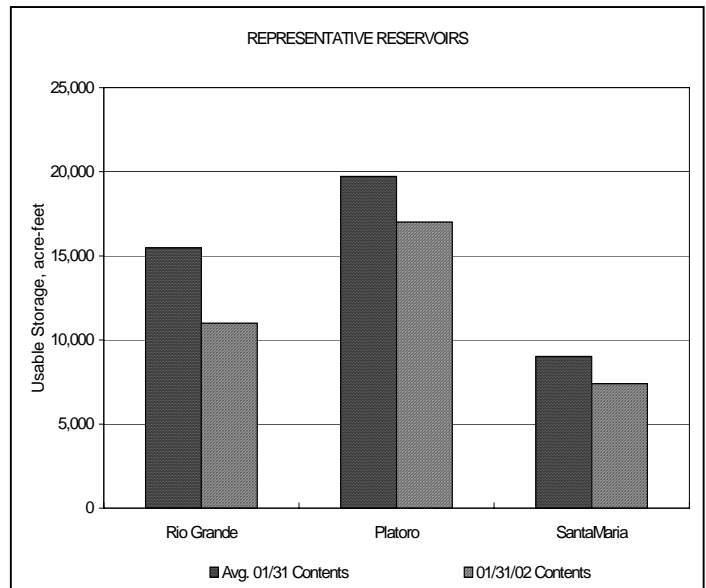
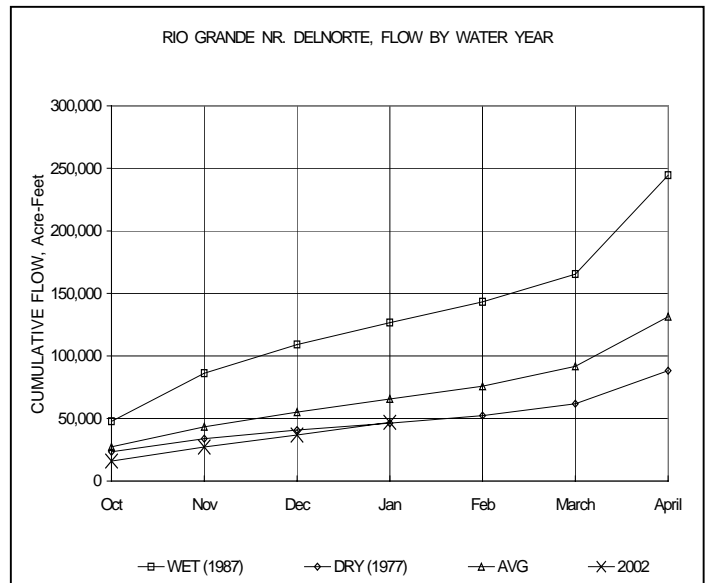
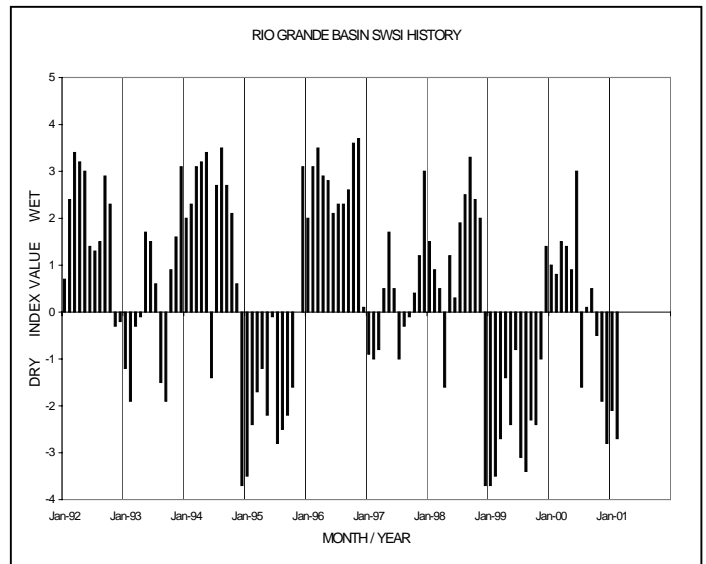
End of the year analysis of stream flow in the upper Rio Grande Basin found the Rio Grande near Del Norte carried 110% of the normal annual volume during 2001 and the Conejos near Mogote carried 85% of normal.

The total Closed Basin Project production during 2001 was 20,255 acre-feet, of which 16,561 acre-feet were creditable delivery to the state line. This creditable delivery helps the two river systems meet Colorado's delivery obligation to New Mexico and Texas.

The provisions of the Rio Grande Compact allow Colorado to accumulate a delivery credit or debit to the downstream states. Colorado utilized a portion of its accumulated 27,000 acre-feet of delivery credit during 2001. About 10,600 acre-feet of credit will carry over into 2002.

Public Use Impacts

Outdoor activities dependent on snow depth are suffering from the below average snowpack conditions in the mountains.



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 63% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 37.8 cfs, as compared to the long-term average of 44.6 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 94% of normal as of the end of January.

Outlook

Grand Mesa snowpack is a little over 50% at Park Reservoir. The reservoir storage on Grand Mesa is down, and carry over is very low, about 22% of capacity. There is less than average snowpack for this time of year, and adding insult to injury, the snow we do have in the basin is a dry powder, without much moisture content. The first month into the year, court applications and permit applications are down, although regional population growth continues.

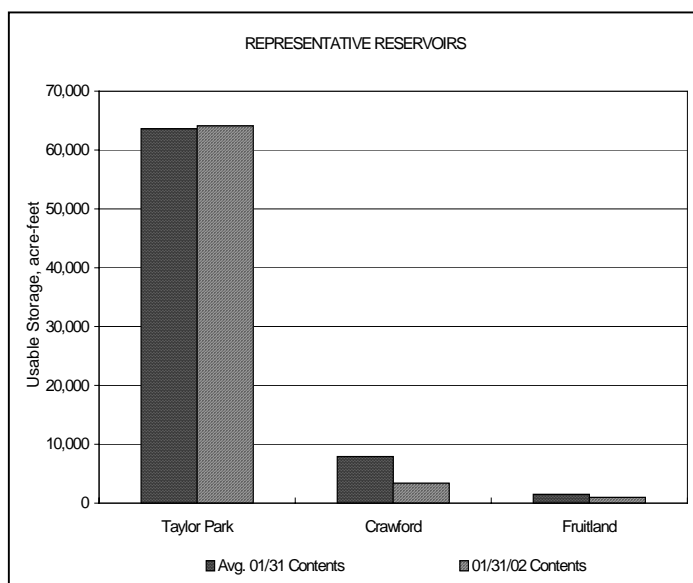
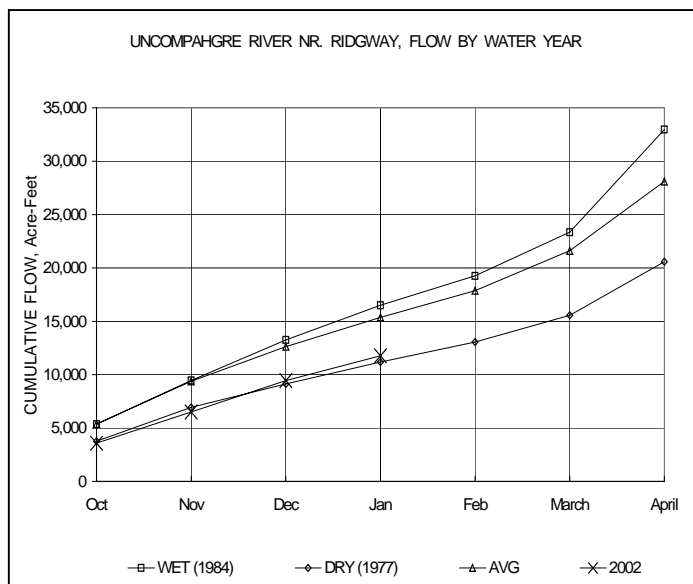
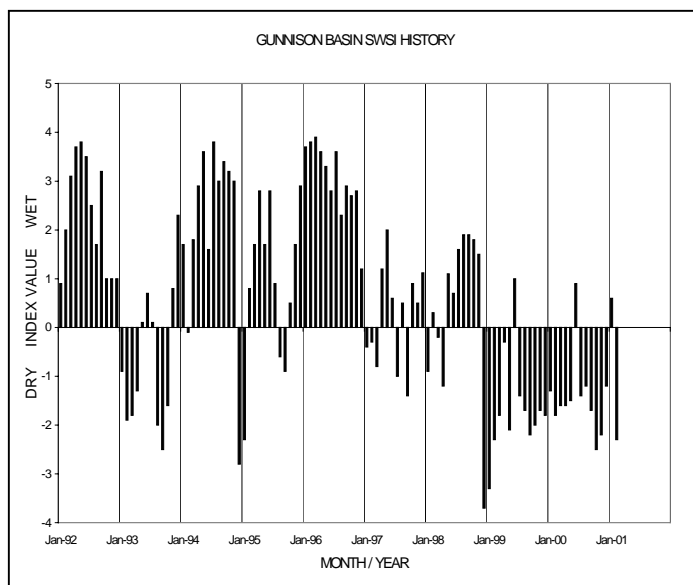
Administrative/Management Concerns

The lack of precipitation is causing concern among water administrators and water users. Tensions are increasing because of the lack of both carry over and back up sources. The lack of water this year may also increase the rate of wells being replaced, a rate that has been on the rise in recent years.

Public Use Impacts

The Telluride area appears to be thriving on the snow from December and early January. The ski areas have not made snow since the end of December. The snowpack is below average, but the colder temperatures have reduced melting of the snow that has fallen in the basin.

In January, 2001, Black Canyon National Park filed in water court to quantify their Federal Reserve water right for flow in the Gunnison river through the canyon. The filing sparked much controversy. Public and private entities reacted by filing a record 383 statements of opposition. The original water was created in the Supreme Court Case US vs. Denver, and that case designated Water Division 5 as the representing court. The Park Service filed the 2001 case in Division 4. Since then, opposing parties have been working with the Park Service to have the venue changed to the Division 4 court, but this issue has not yet been resolved.



Basinwide Conditions Assessment

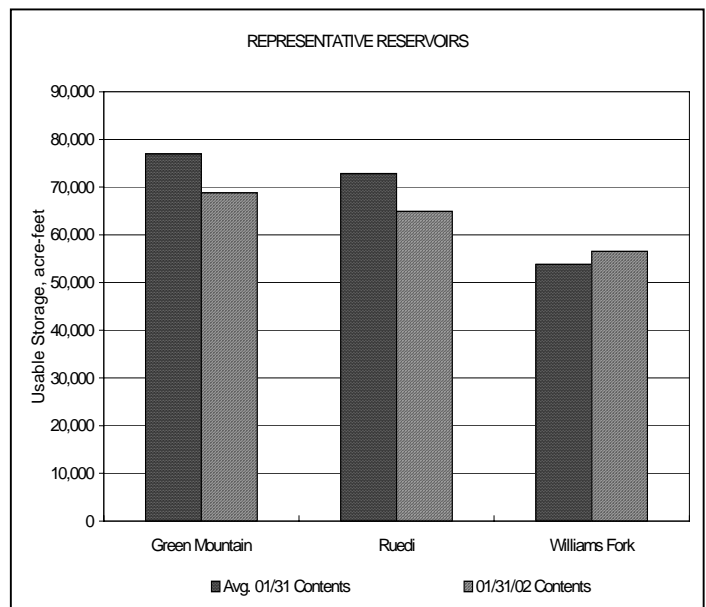
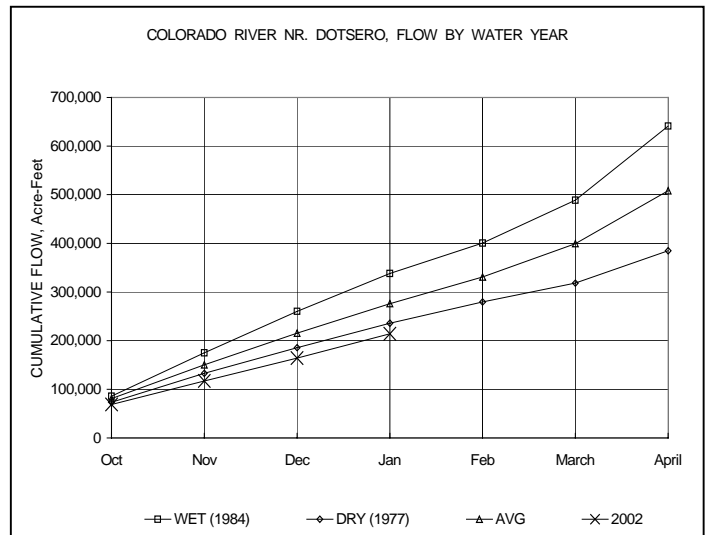
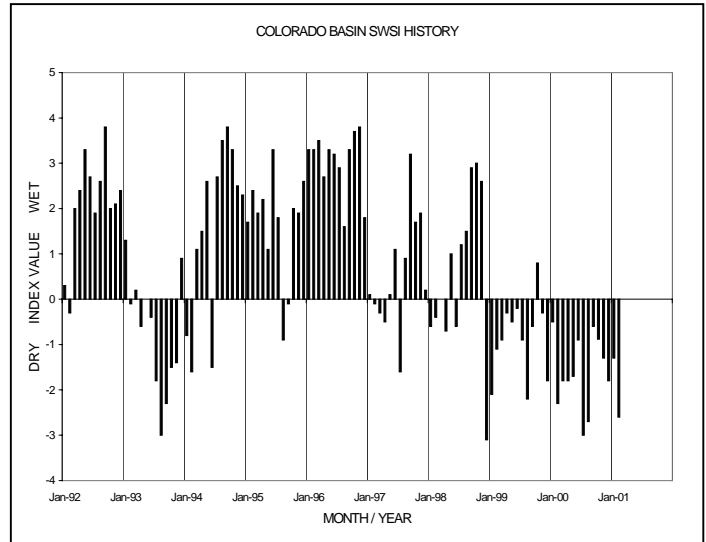
The SWSI value of -2.6 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 70% of normal. Flow at the gaging station Colorado River near Dotsero was 811 cfs, as compared to the long-term average of 987 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 93% of normal as of the end of January.

Outlook

January precipitation was less than 50% of average for the Lower Colorado Basin and ranged from 50% to 89% of average for the Upper Basin. National Weather Service forecasts are predicting April-July runoff to be 69% of average at the Dotsero gage and 70% at the Cameo gage. Plateau Creek runoff is predicted to be only 57% of average, and Muddy Creek (at Wolford Mtn. Reservoir) only 63%. An El Nino weather pattern may be developing this year, but it will probably not have an impact until summer. With current data, Green Mountain Reservoir has only a 40% chance of filling this year and Granby Reservoir is not expected to fill.

Administrative/Management Concerns

The senior Shoshone power call with no swing right remained on through January at the reduced amount of 700 cfs for turbine maintenance at the power plant. When the power plant maintenance is completed in March, the call will continue at the raised level of approximately 1,400 cfs. The river call should remain off until summer for the lower Basin.



Basinwide Conditions Assessment

The SWSI value of -2.8 indicates that for January the basin water supplies were below normal. Flow at the gaging station Yampa River at Steamboat was 85.9 cfs, as compared to the long-term average of 99.8 cfs.

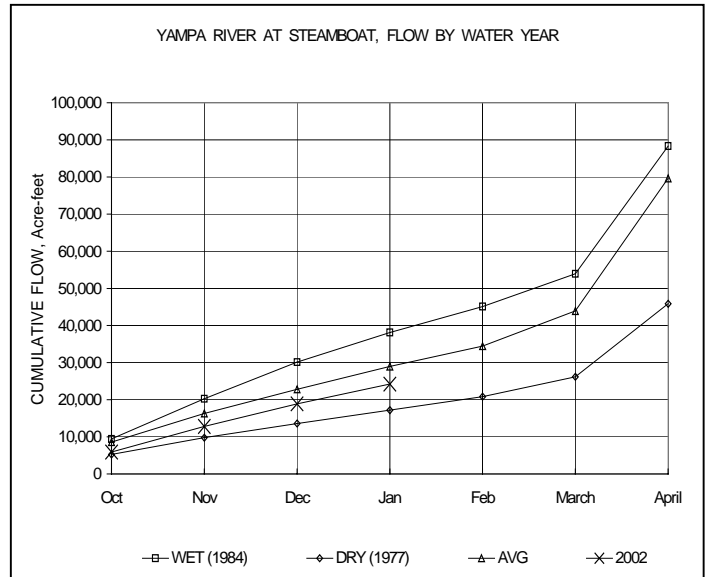
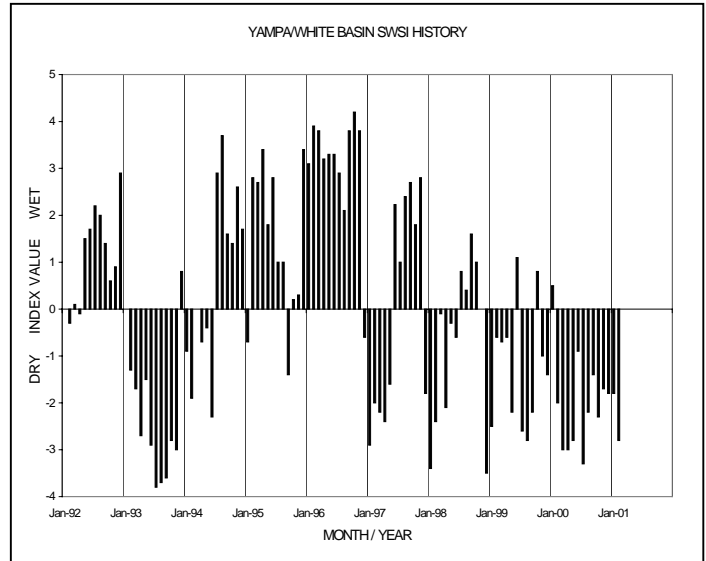
January continued the trend of cold temperatures and below normal precipitation. Basin wide precipitation, as measured at the area SNOWTEL sites, was only 60% of average for the month. Snowpack in the basin ranged from a high of 68% for the Little Snake River to a low of 61% for the North Platte. The Yampa and White Rivers had a combined snowpack of 66% of average.

Outlook

The February 1 runoff forecast, provided by the Natural Resource Conservation Service, estimates the most probable springtime runoff on the various major drainages will range from 44% of average on the North Platte, near Northgate to 66% of average on the White River near Meeker. The forecast for the Yampa River near Maybell is 64% of average, and the Little Snake near Dixon is forecasted to be 55% of average. These forecasts are all lower than a month ago.

Administrative/Management Concerns

The forecast numbers indicate the basin is facing a potential runoff season that could be worse than last year. If the weather patterns that have been seen so far this winter continue, administration of water rights may begin earlier than normal in parts of the basin. Given the present conditions, water users could potentially see lower peak flows during the runoff, coupled with shorter runoff duration.



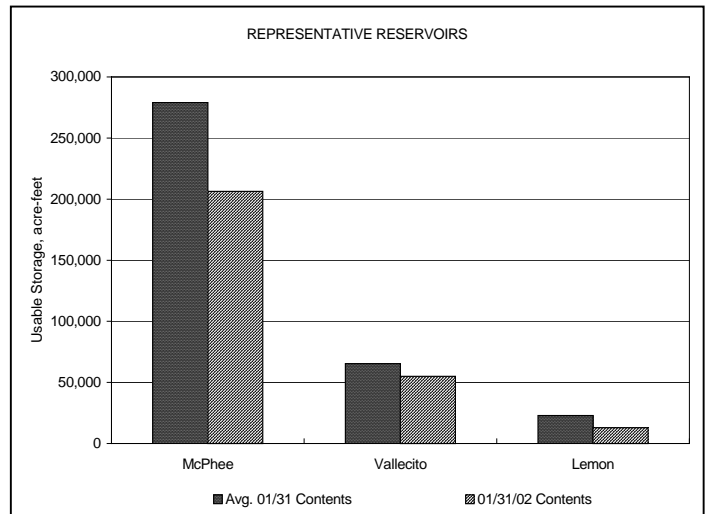
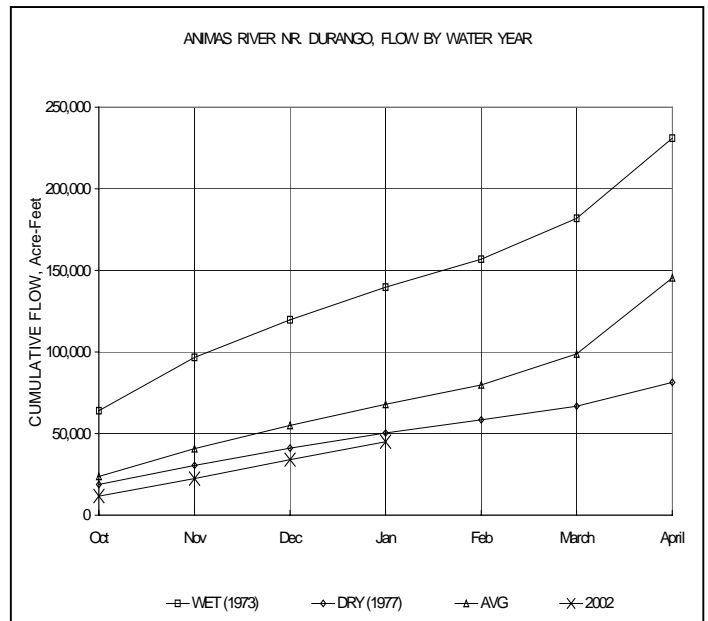
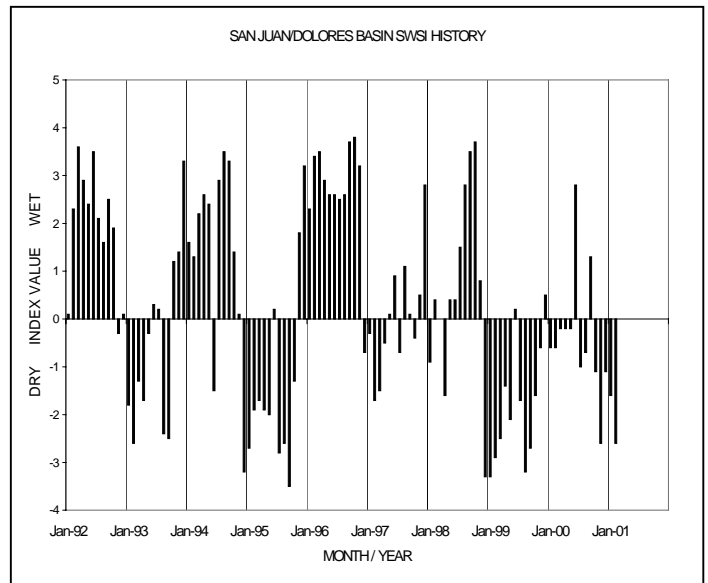
Basinwide Conditions Assessment

The SWSI value of -2.6 indicates that for January the basin water supplies were below normal. The Natural Resources Conservation Service reports that February 1 snowpack is 51% of normal. Flow at the gaging station Animas River near Durango was 178 cfs, as compared to the long-term average of 211 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 75% of normal as of the end of January.

Outlook

In some years, January is the main snow month. The average precipitation in Durango during the month is about 2.0 inches, one of the year's highest. This year only 0.06 inches were recorded in Durango, making it the worst January on record.

The snowpack declined with respect to normal and stood at 52% across the San Juan and Dolores River drainages with the best courses being in San Juan County and the Upper Dolores. Archuleta-Mineral-Hinsdale county areas were witnessing around 33% of normal. The water year to date was running around less than half of normal. River flows were running below normal. The Animas River in Durango was only 170 cfs at the end of the month. Reservoir storage remained about the same but Lemon reduced its outflow to prevent more storage loss. Temperatures were about normal but a few degrees above normal lows as Durango reached a minimum of -1° F on January 19th. Several days were reduced to single digits. Prospects were not good for increases or changes in weather as the whole state was suffering shortages. Storms poised for north or south of the area as high pressure dominated.



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