COLORADO
WATER SUPPLY CONDITIONS UPDATE

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

As a whole water supply conditions are better across the state than they were at this time during 2000, which was quite dry. The negative SWSI values indicate the west central and northern portions of the state are the driest areas of the state. Much of the west slope and the San Luis Valley received rain during August, which was welcome in some areas but hindered harvesting of crops in others.

The summer rains have not resulted in an increase in stream flows to the extent that may have been expected, with stream flows for the most part below normal. Flows in the Rio Grande, which were well above normal during the runoff, have now dropped significantly. Both the South Platte and Arkansas basins report stored reservoir water is being used to meet much of the irrigation demand.

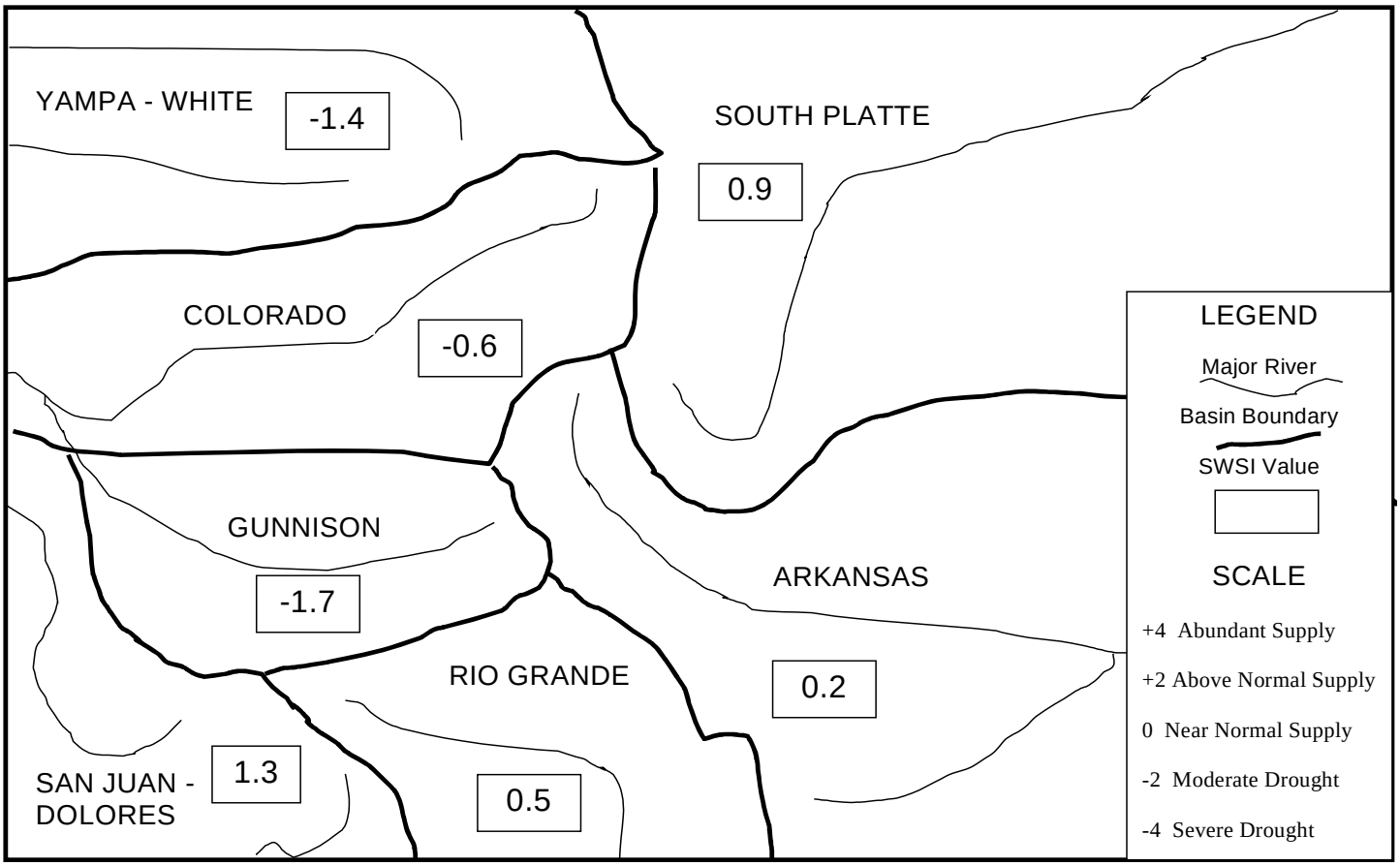
The Surface Water Supply Index (SWSI) developed by this office and the U.S.D.A. Natural Resources Conservation Service is used as an indicator of mountain-based water supply conditions in the major river basins of the state. It is based on stream flow, reservoir storage, and precipitation for the summer period (May through October). During the summer period, stream flow 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 September 1, 2001, and reflect the conditions during the month of August.

Basin	September 1, 2001 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	0.9	-0.7	-1.0
Arkansas	0.2	-0.1	0.0
Rio Grande	0.5	+0.4	+2.8
Gunnison	-1.7	-0.5	+0.6
Colorado	-0.6	+2.1	0.0
Yampa/White	-1.4	+0.8	+0.8
San Juan/Dolores	1.3	+2.0	+1.4

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



SEPTEMBER 1, 2001

Basinwide Conditions Assessment

The SWSI value of 0.9 indicates that for August the basin water supplies were near normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 86% of normal as of the end of August. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 32% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 91% of capacity. Flow at the gaging station South Platte River near Kersey was 292 cfs, as compared to the long-term average of 887 cfs. Flow at the Colorado/Nebraska state line averaged 67 cfs.

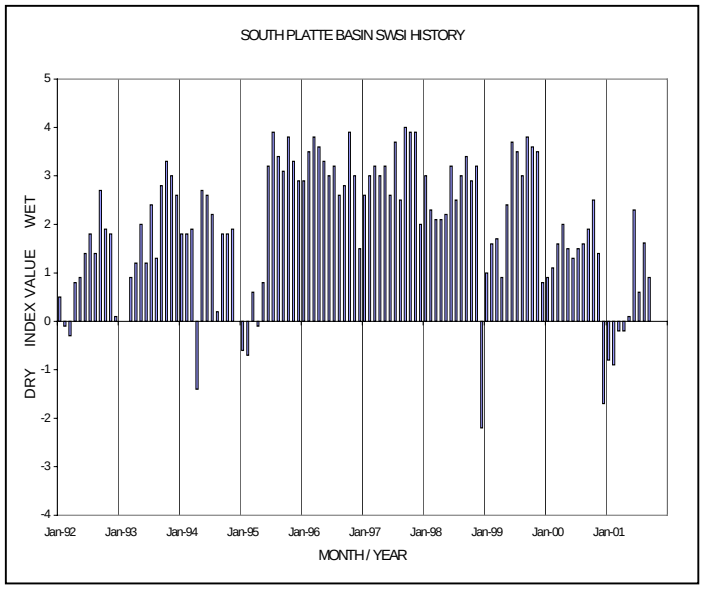
The storms that provided relief during July stopped during August. As a result, river flows continued to be below average during the month, though much better than last year. Senior calls continued throughout the whole month.

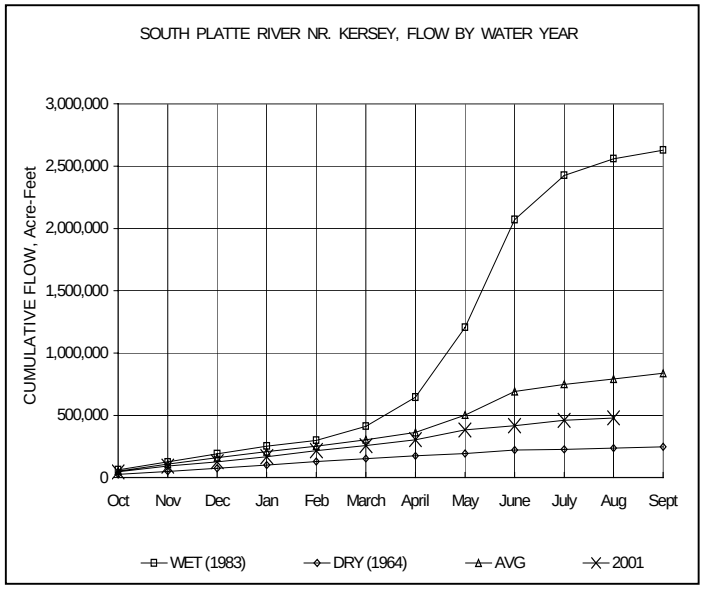
Much of the irrigation demand on the mainstem and the tributaries was met through the release of reservoir storage. Of help, there was some additional supply in the South Platte created by releases of Jackson Reservoir to allow for maintenance of the dam this fall. Nevertheless, many reservoir levels remain average or above average throughout the basin for this time of year. This is in striking contract to last year when many of the plains reservoirs were near empty.

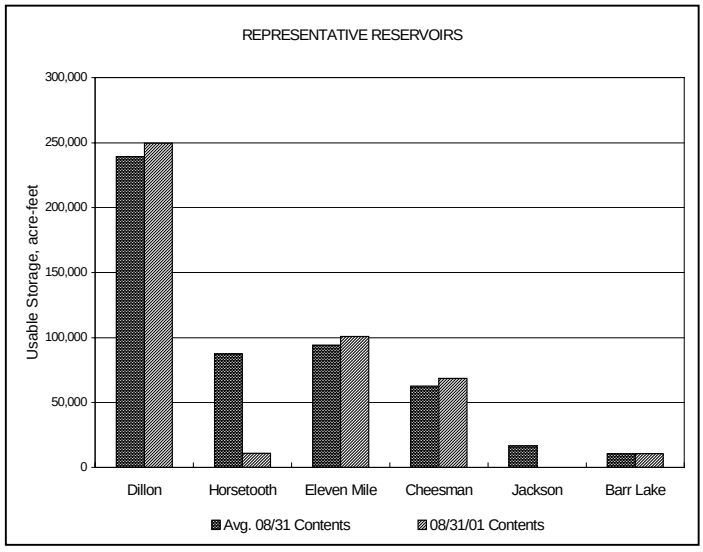
Outlook

Refilling irrigation reservoirs should not be difficult as long as conditions remain near normal.

Overall, municipal supplies look adequate at this time.







Basinwide Conditions Assessment

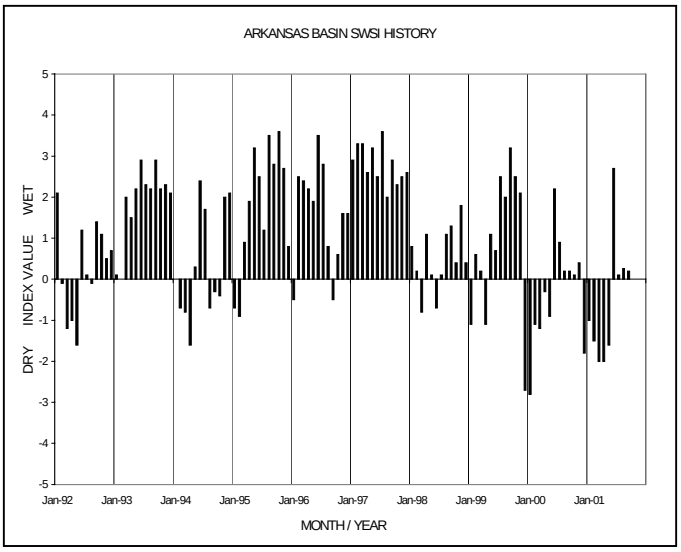
The SWSI value of 0.2 indicates that for August the basin water supplies were near normal. Flow at the gaging station Arkansas River near Portland was 640 cfs, as compared to the long-term average of 1,014 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 86% of normal as of the end of August.

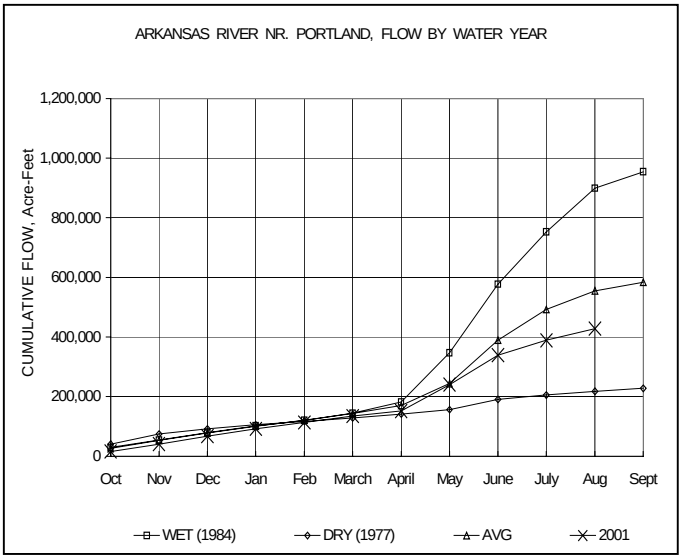
Outlook

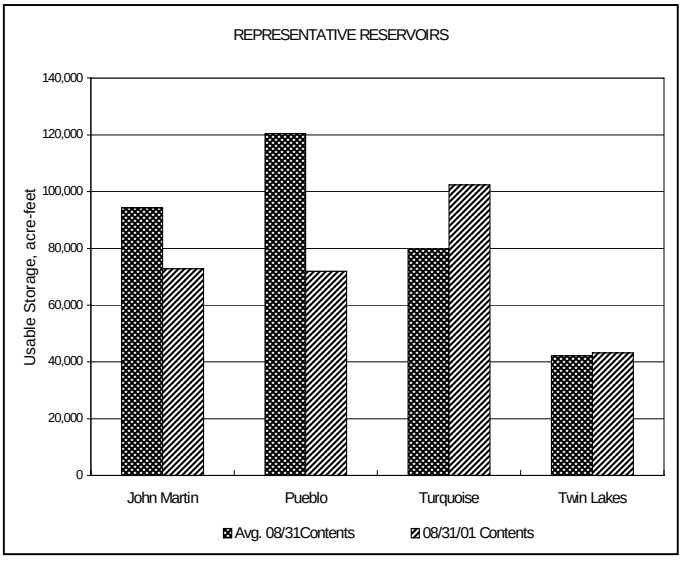
Well pumping had not increased significantly through July, but may see an increase during August and September as surface supplies dwindle.

Administrative/Management Concerns

Irrigation demand remained high while a predominately senior river call forced many of the major ditches to rely heavily on stored water. Both Pueblo and John Martin Reservoirs experienced heavy draw down of stored water for the second month in a row. Irrigation stored water for the major irrigation ditches in Water Districts 14, 17, and 67 amounted to only about 14,500 acre-feet in Pueblo Reservoir and 40,000 acre-feet in John Martin Reservoir at the end of August.







Basinwide Conditions Assessment

The SWSI value of 0.5 indicates that for August the basin water supplies were near normal. Flow at the gaging station Rio Grande near Del Norte was 722 cfs, as compared to the long-term average of 719 cfs. The Conejos River near Mogote had a mean flow of 196 cfs (96% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 82% of normal as of the end of August.

Precipitation in Alamosa was 3.22 inches, 2.10 inches above normal. Alamosa temperatures ranged form 37° to 84°, with an average of 62.6°, 0.2° above normal.

Outlook

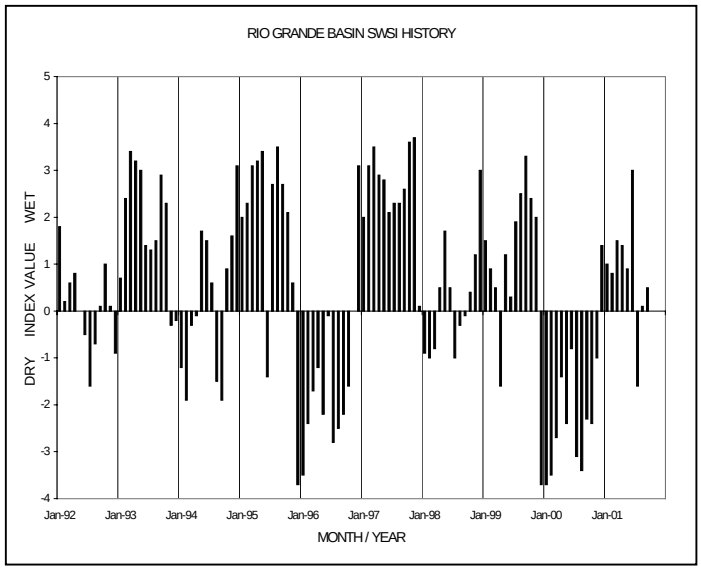
Despite consistent rainfall in the basin during August, the effect on flow in area streams was not as significant as expected. As the month came to a close, most streams in the basin had dropped back down below historic levels. Local Division of Water Resources personnel are forecasting that flows in the basin's streams will remain below average throughout the fall.

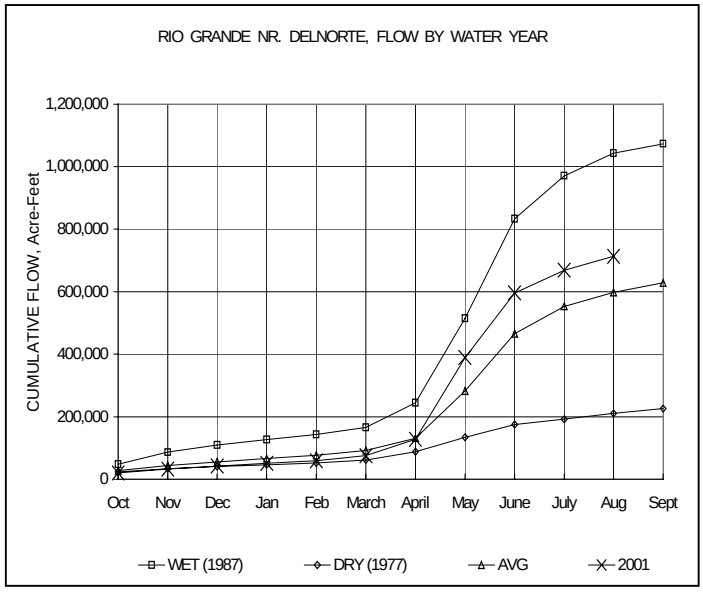
Administrative/Management Concerns

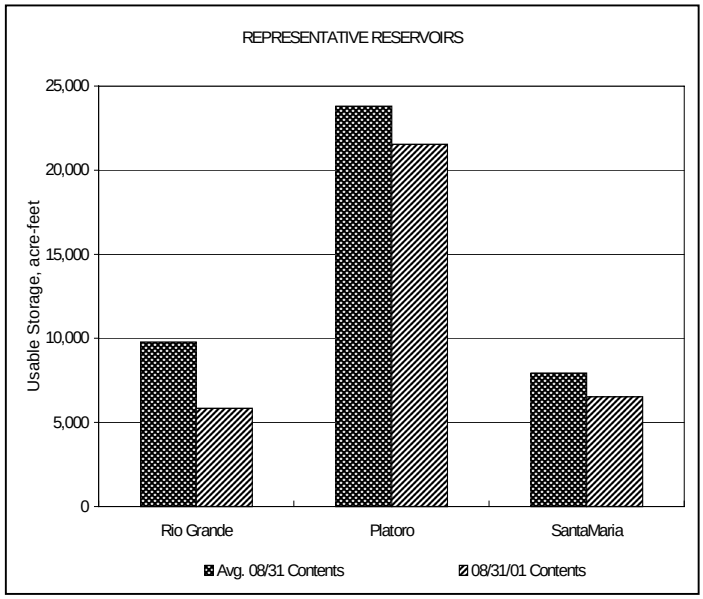
The dramatic drop in stream flow since June has led administrators to rethink the Rio Grande Compact delivery strategy. Irrigators on the Rio Grande and Conejos River, and their tributaries, are no longer being curtailed from diverting the available stream flow.

Public Use Impacts

The steady rain during August had a very detrimental impact on crop harvest and yield. Farmers with grain and alfalfa crops suffered the worst as rainstorm after rainstorm delayed the harvest or molded what was cut and lying in the fields.







Basinwide Conditions Assessment

The SWSI value of –1.7 indicates that for August the basin water supplies were below normal. Flow at the gaging station Uncompahgre River near Ridgway was 163 cfs, as compared to the long-term average of 171 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 79% of normal as of the end of August.

The late summer rains have eased the dry hot conditions of mid summer bringing humidity and notable rainstorms. In August Montrose received 1.39 inches of rain, as compared to 0.6 inches in August of 2000. On August 8th it rained 4 inches in a 2 hour period along the San Miguel River causing flooding, mudslides, and stranded traffic. The Sawpit area received the heaviest rains.

Administrative/Management Concerns

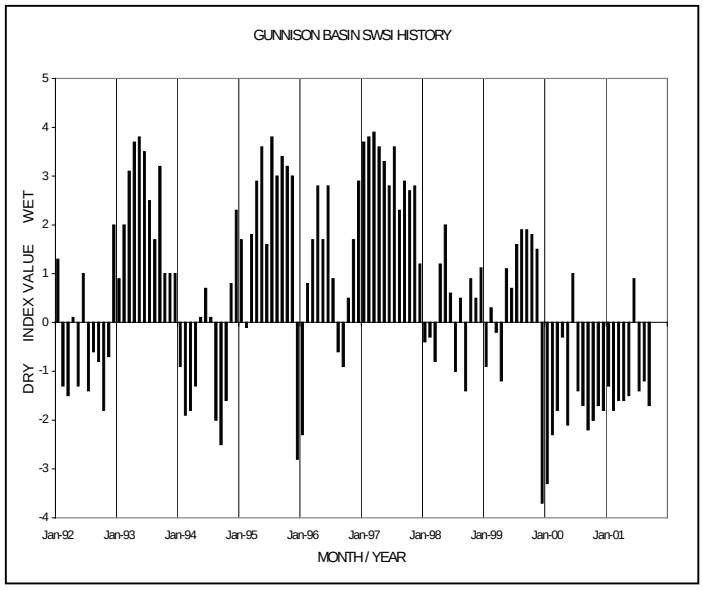
Work continues on locating an augmentation source for all of the illegal wells and water supplies in the canyon along the San Miguel River. First priority will be to obtain a replacement source to accommodate existing structures. It is hoped there will be a replacement found to allow for expansion and growth in that area. Many of the locals stress their concern for potential growth and are very cautions about what they agree to.

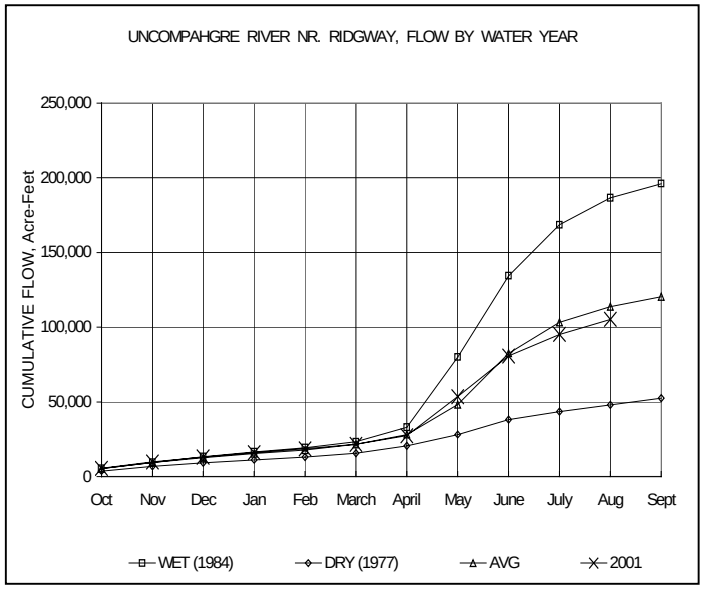
Public Use Impacts

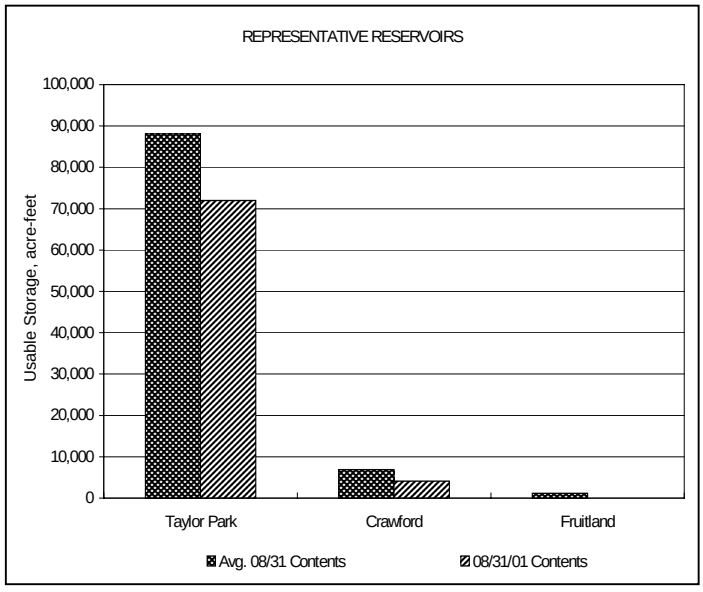
Basin administrators are seeing growth in areas that were stagnant for many years, including areas that are already populated. Users in areas that are not yet considered critical are able to obtain residential well permits with no great obstacles.

The Taylor Reservoir continued to release a steady flow down the Taylor River throughout August, which allowed recreational uses to continue to the end of the rafting season. Releases are planed to increase by the first part of September.

The late season rains in the higher country once again made it difficult for the ranchers who are trying to put up their hay for the summer.





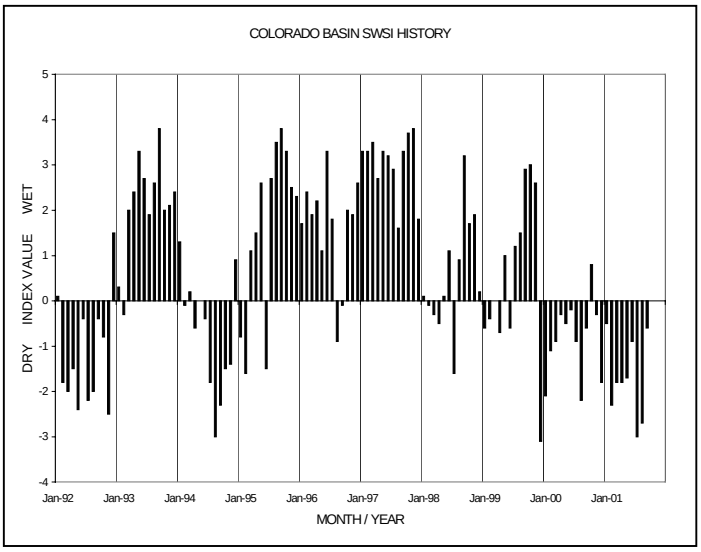


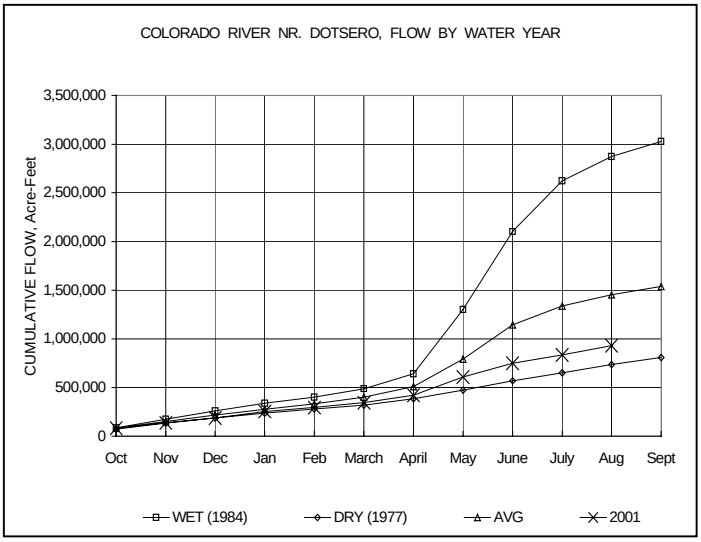
Basinwide Conditions Assessment

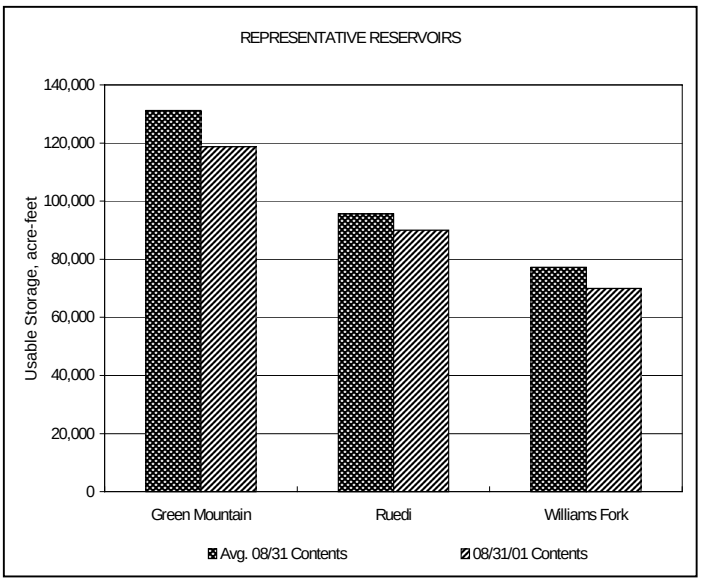
The SWSI value of –0.6 indicates that for August the basin water supplies were near normal. Flow at the gaging station Colorado River near Dotsero was 1,537 cfs, as compared to the long-term average of 1,848 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 92% of normal as of the end of August.

Administrative/Management Concerns

The junior Cameo call was placed on the river at the end of August. This, combined with the senior Shoshone power plan call, placed most of the Colorado River basin under an administration going into September.



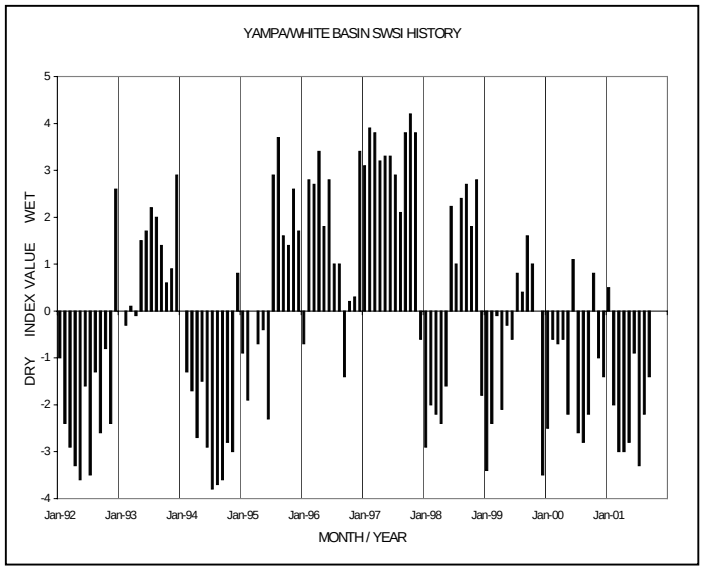




Basinwide Conditions Assessment

The SWSI value of –1.4 indicates that for August the basin water supplies were slightly below normal. Flow at the gaging station Yampa River at Steamboat was 125 cfs, as compared to the long-term average of 159 cfs.

August brought increased rainfall to the basin, but the storms were scattered and short lived. Flows in the rivers and streams remained at levels well below the seasonal norms. While irrigation reservoirs have been drawn down, recreational reservoirs have stayed nearly full.

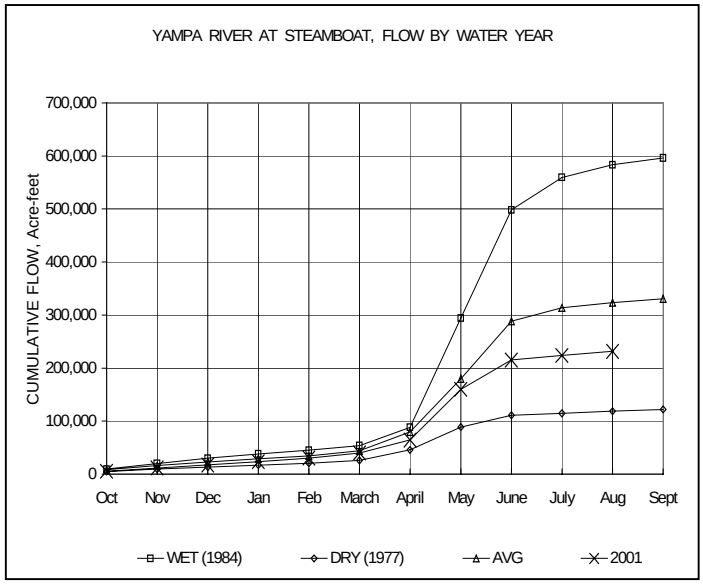


Outlook

Stream flows are at very low levels. Fall irrigation and livestock watering will soon become the major demands on the systems. As fall approaches, water use by phreatophytes should cease, resulting in increased base flows. Soil moisture content continues to be low. The area would benefit greatly from an extended period of soaking rains.

Administrative/Management Concerns

Several streams have gone off administrative call, mostly due to the necessity to harvest the hay crop. As the harvest ends many ditches will turn back on to try to grow fall pasture or for livestock watering purposes. Low stream flows may cause many streams to go back under administration as demand exceeds supply. Low flows on the Yampa River in the critical habitat area may cause problems for the endangered species. Releases from Steamboat Lake were started in late August to help supplement river flows for the endangered fish. These releases will continue into October given the current discharge rate.



Public Use Impacts

Many reservoirs have been drawn down to provide irrigation water. Stream flows are lower than normally seen at this time of year.

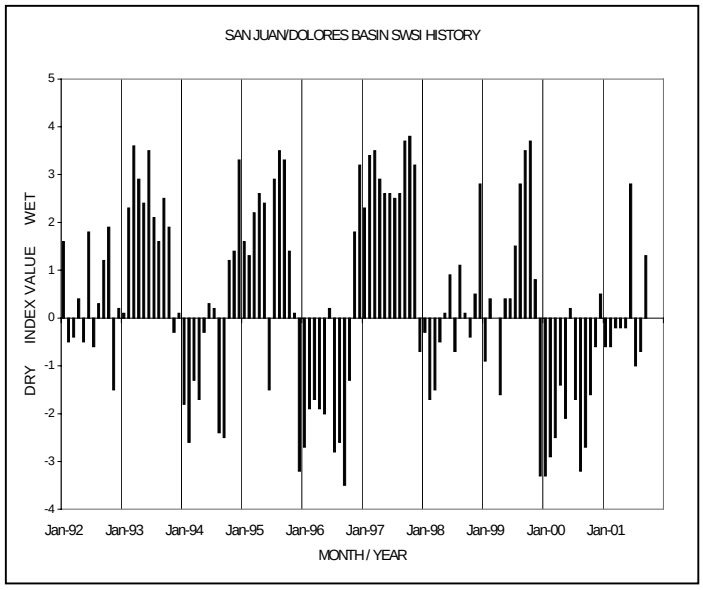
Basinwide Conditions Assessment

The SWSI value of 1.3 indicates that for August the basin water supplies were slightly above normal. Flow at the gaging station Animas River near Durango was 590 cfs, as compared to the long-term average of 574 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 93% of normal as of the end of August.

August brought welcome relief through nearly daily precipitation between the 1st and the 17th of the month. A total of 3.79 inches in Durango (144% of normal) brought the water year total up to 21.57 inches (122% of normal). Much of the dry grass and vegetation sprang to life. Durango's average high was 0.6° below normal and its average low was 3.4° above normal. A temperature of 90° was reached on only 2 days, the 3rd and 27th.

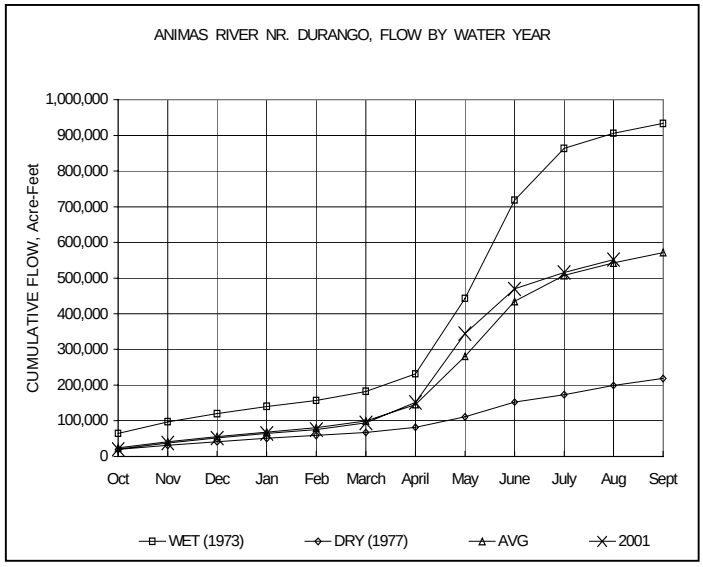
River flows were normal to slightly below normal. The La Plata River at Hesperus averaged 17 cfs compared to its long term average of 20.5 cfs.

Reservoirs remain near normal, with McPhee at 86% of average, Lemon Reservoir at 105% of average, and Vallecito Reservoir at 128% of average.



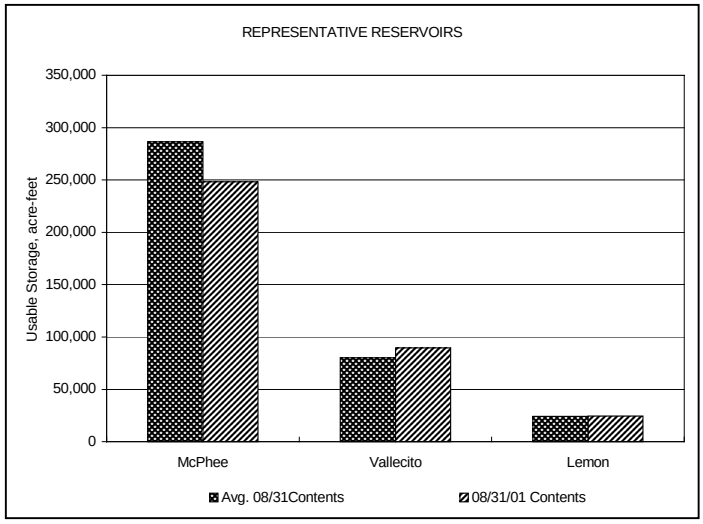
Administrative/Management Concerns

The Pine River went off call on August 13 as Vallectio Reservoir released water to get down to its winter storage level.



Public Use Impacts

River recreation continued to be popular for tubers and swimmers. Fishing activity continued in streams and lakes.



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