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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September 2007

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 statewide SWSI values for the month range from a high value of 2.8 in the San Juan/Dolores Basin to a low value of -2.5 in the Yampa/White Basin. Six of the basins (South Platte, Arkansas, Rio Grande, Colorado, Yampa/White, and San Juan/Dolores) experienced a gain from the previous month's values. One of the basins (Colorado) experienced a loss from the previous month's values.

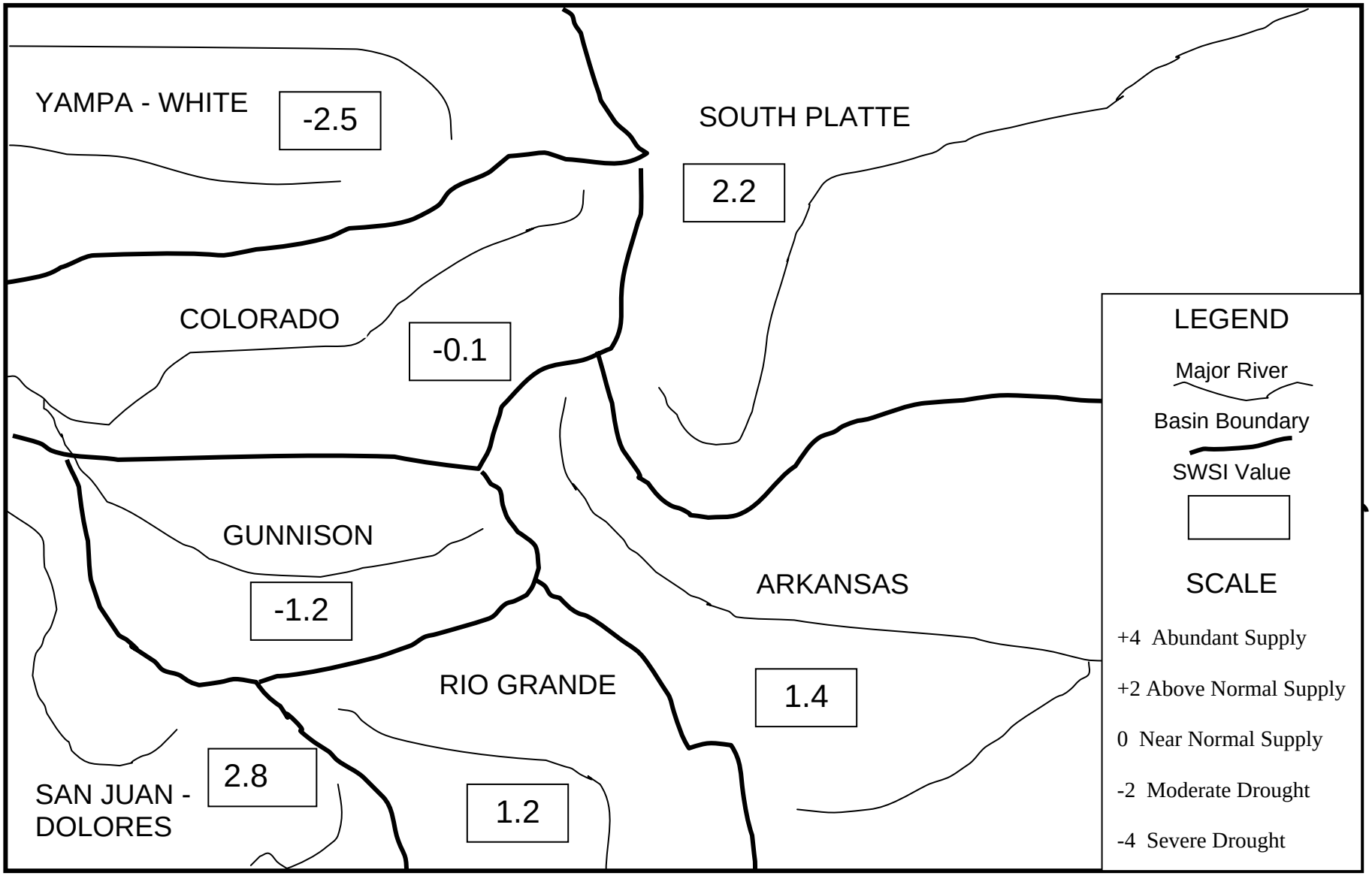
The following SWSI values were computed for each of the seven major basins for September 1, 2007, and reflect the conditions during the month of August 2007.

Basin	September 1, 2007 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+2.2	+0.9	+0.8
Arkansas	+1.4	+0.8	+2.9
Rio Grande	+1.2	+0.7	+3.0
Gunnison	- 1.2	- 0.7	- 1.8
Colorado	- 0.1	+0.9	+1.0
Yampa/White	- 2.5	+1.2	- 1.9
San Juan/Dolores	+2.8	+3.2	+4.7

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, 2007

Basinwide Conditions Assessment

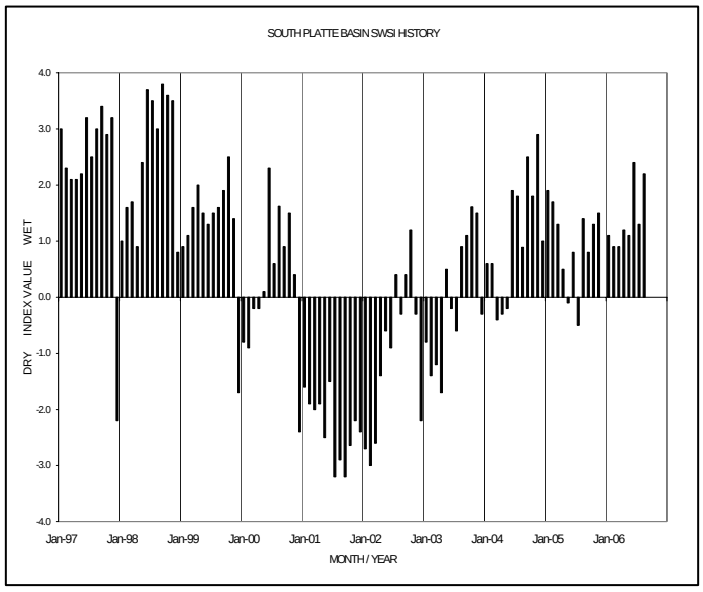
The SWSI value for the month was 2.2. Reservoir storage in Dillion, Horsetooth, Eleven Mile, Cheesman, Jackson, and Barr Lake, the major component in this basin in computing the SWSI value, was 110% of normal as of the end of August. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 40% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 99% of capacity. Flow at the gaging station South Platte River near Kersey was 543 cfs, as compared to the long-term average of 505 cfs. Flow at the Colorado/Nebraska state line averaged 46 cfs.

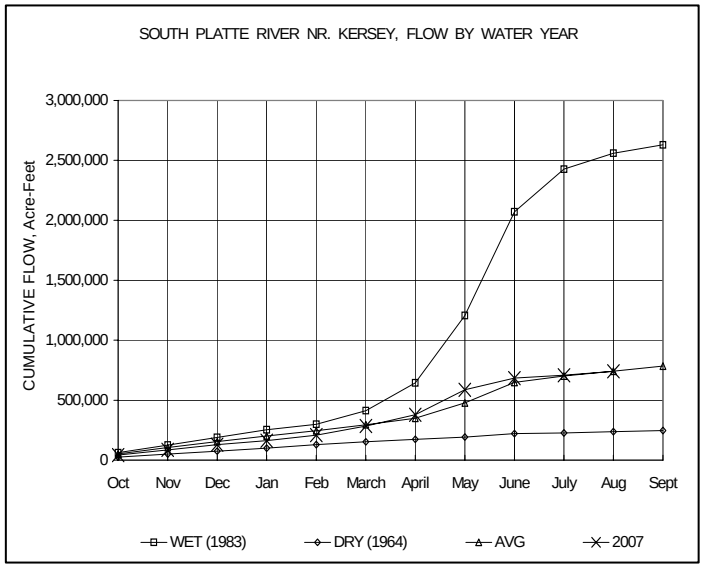
Outlook

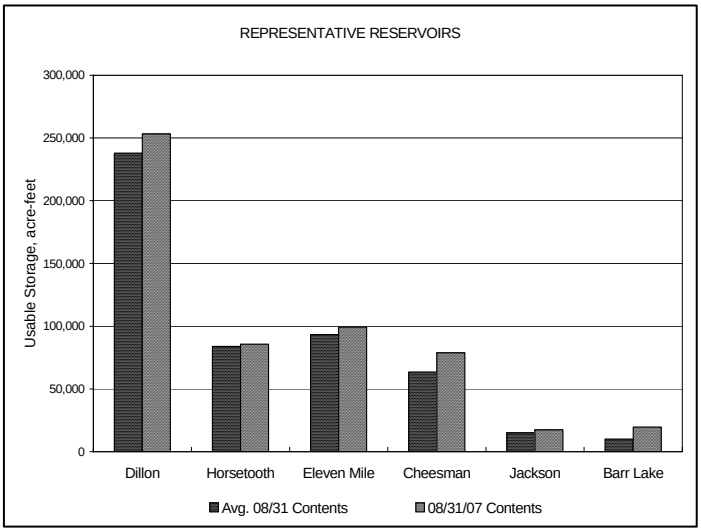
The generally positive flow conditions continued in August on the South Platte and tributaries with a couple of significant rain storms that helped to keep the flows above average. With above average flow in August, the call for water on the mainstem and tributaries was more junior than in most years and certainly more junior than the last several years. Generally, municipal and agricultural reservoirs storage levels are at or above average for this time of year and thus no shortages are anticipated this year. The anticipated available storage will also provide a much better start for water year 2008 than we had for this year.

Administrative/Management Concerns

Of note, Division personnel have supported the South Platte Task Force initiated by Governor Ritter this summer. "The Task Force is charged with clearly articulating the problems faced by water users in the South Platte River Basin and recommending potential solutions," Further, the Task Force is "to consider whether there are any changes to current water law or policy that will provide relief to junior water users without injuring senior water right holders." The junior users referred to are those with wells that have either been curtailed or pumping severely limited. The Task Force is scheduled to complete their work in September.







Basinwide Conditions Assessment

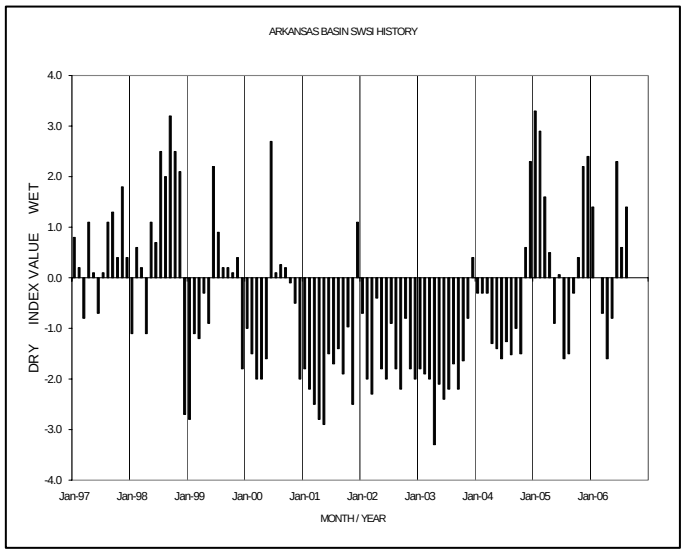
The SWSI value for the month was 1.4. Flow at the gaging station Arkansas River near Portland was 984 cfs, as compared to the long-term average of 940 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 106% of normal as of the end of August.

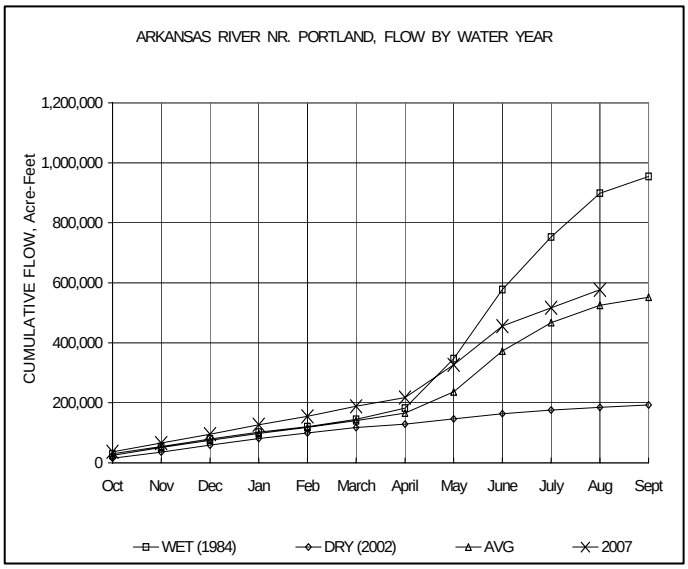
Outlook

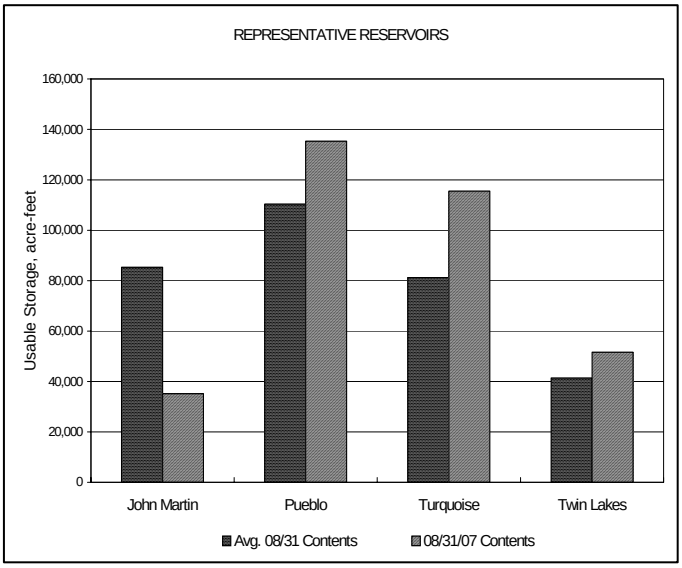
The Arkansas River call began the month set at the Fort Lyon Canal #2 call (3/1/1887). Heavy rains occurred over the St. Charles River Basin in early August causing significant local flood damage near Beulah and causing an estimated peak flow on August 2, 2007 through the St. Charles River at Vineland gage of 1,400 cfs. Additionally the heavy rainfall contributed to a large increase in storage in Pueblo Reservoir which was quickly passed downstream. The resulting peak flow through the Arkansas River near Avondale gage was 2,350 cfs and, as a result the river call was much more junior from August 3rd through August 9th. The river call at the end of August was set at the Amity #1 call (2/21/1887) reflecting the gradual decrease in significant rain events that occurred.

Administrative/Management Concerns

Pueblo Board of Water Works drained Clear Creek Reservoir down during August to begin construction repair work on the dam and outlet works in September. PBWW had a challenge finding sufficient short-term storage to accommodate the released water and had some water sales during 2007 to mitigate the temporary interruption in storage and voluntarily decreased west-slope imports for a period of time as well.







Basinwide Conditions Assessment

The SWSI value for the month was 1.2. Flow at the gaging station Rio Grande near Del Norte averaged 774 cfs (100% of normal). The Conejos River near Mogote had a mean flow of 273 cfs (133% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 102% of normal as of the end of August.

Precipitation in Alamosa was 0.49 inches, less than half of normal for August. However, significant rainfall occurred in some areas of the valley. Temperatures ranged from 40 degrees to 88 degrees in Alamosa where the average monthly temperature was 65.4 degrees, 3.3 degrees above normal.

Outlook

The above-average flow in the Conejos River was due to extensive storage releases from Platoro Reservoir for downstream irrigation need.

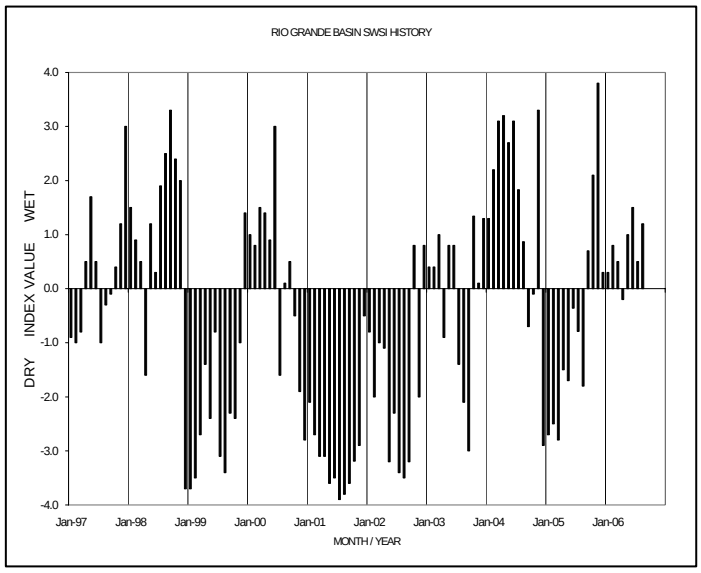
Other area streams were near or above average flow for August, due mainly to the higher flows near the beginning of the month. Soil moisture conditions in the basin are very good.

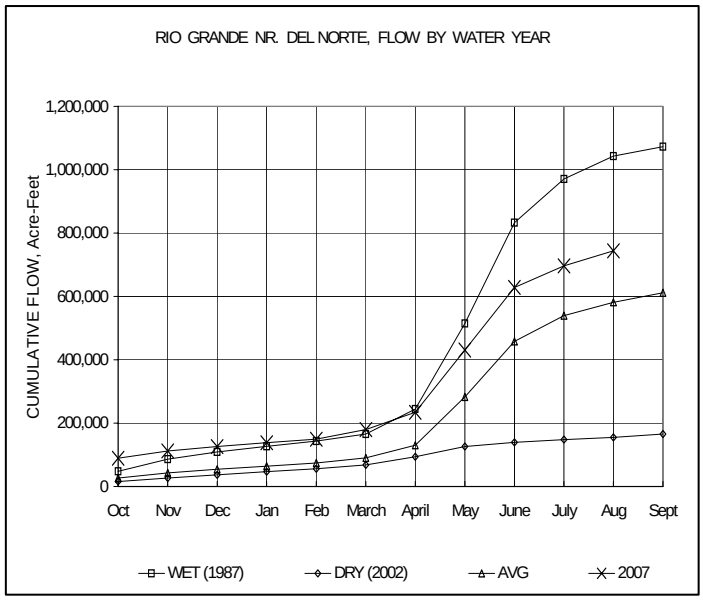
Administrative/Management Concerns

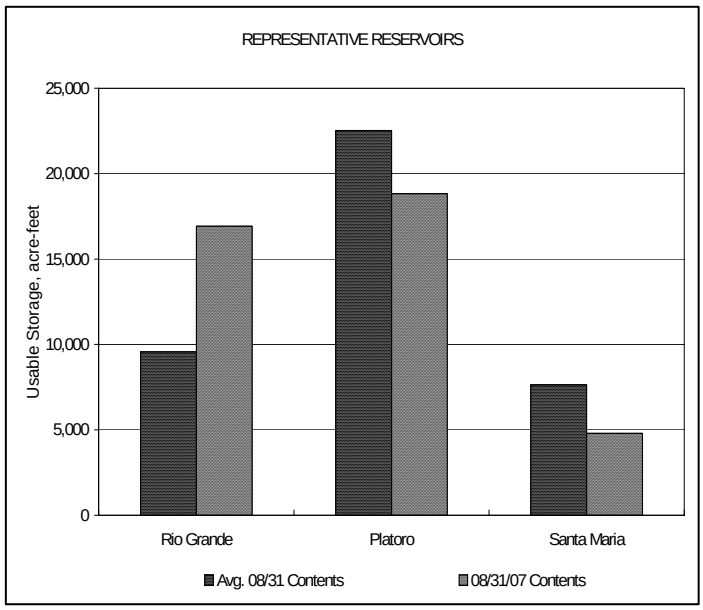
The curtailment percentages on the Rio Grande and Conejos River systems are anticipated to remain at current levels throughout the rest of the irrigation season. A large, unexpected increase or decrease in flows during the remainder of the season may require that the curtailments be adjusted.

Public Use Impacts

Weather conditions have been generally cooperative as farmers and ranchers begin to harvest their crops and cut native hay and alfalfa. Commodity prices for most crops are relatively high, and if the weather holds, the area farmers should have a good year.







Basinwide Conditions Assessment

The SWSI value for the month was –1.2. Flow at the gaging station Uncompahgre River near Ridgway was 168 cfs, as compared to the long-term average of 165 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 97% of normal as of the end of August.

Outlook

Healthy reservoir levels at the beginning of the irrigation season have helped to bring the Gunnison River Basin water users through the generally hot and dry summer. Natural streamflow quickly diminished throughout the basin by July and early reservoir releases for irrigation needs have depleted many reservoirs (such as Fruitland Reservoir, Fruitgrowers Reservoir, Overland Reservoir, and Paonia Reservoir) in the North Fork area by the end of August. Reservoirs on the Grand Mesa continue to supplement natural streamflow in the Kannah, Surface, and Ward Creek drainages and should have good carry-over for next year.

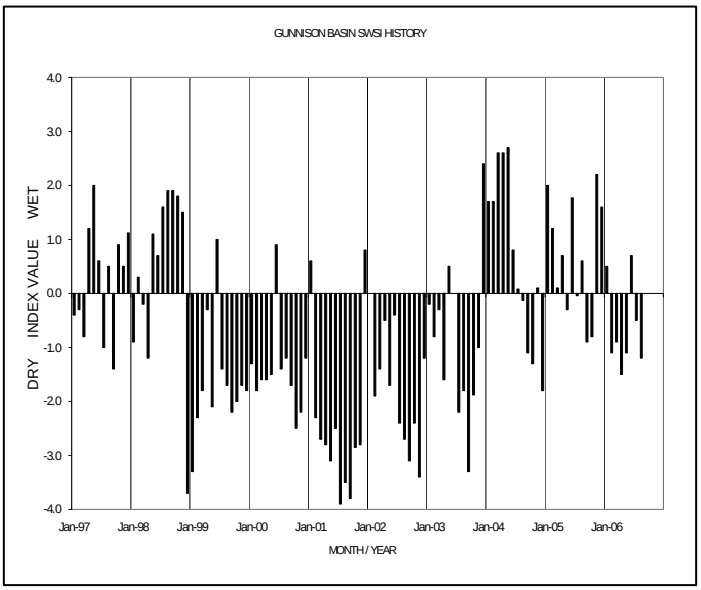
As of this report, "on-call" situations exist on many tributaries in the upper Gunnison River basins. Especially affected by lack of winter and spring precipitation is the East River Basin in the vicinity of Crested Butte, with some tributaries (Coal Creek and Washington Gulch) running dry by mid-August, with the Slate River experiencing an instream flow call by Colorado Water Conservation Board.

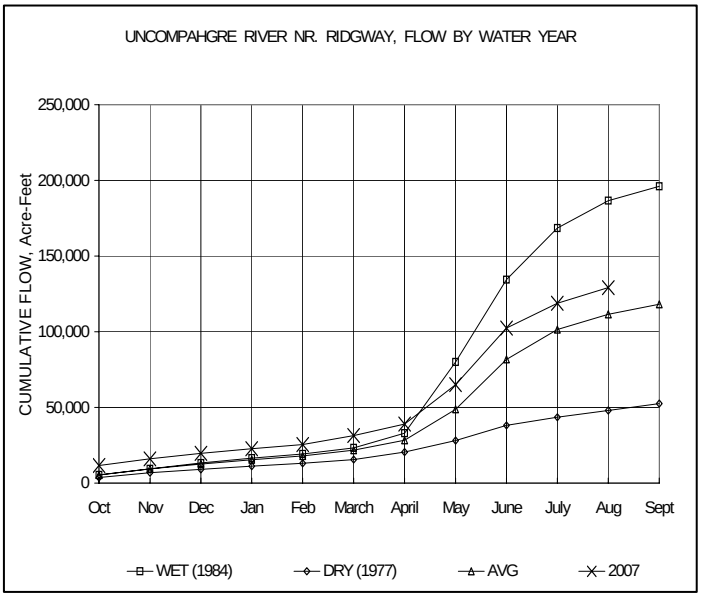
By the end of August, Blue Mesa Reservoir was approximately 740,000 acre-feet or about 89% of capacity.

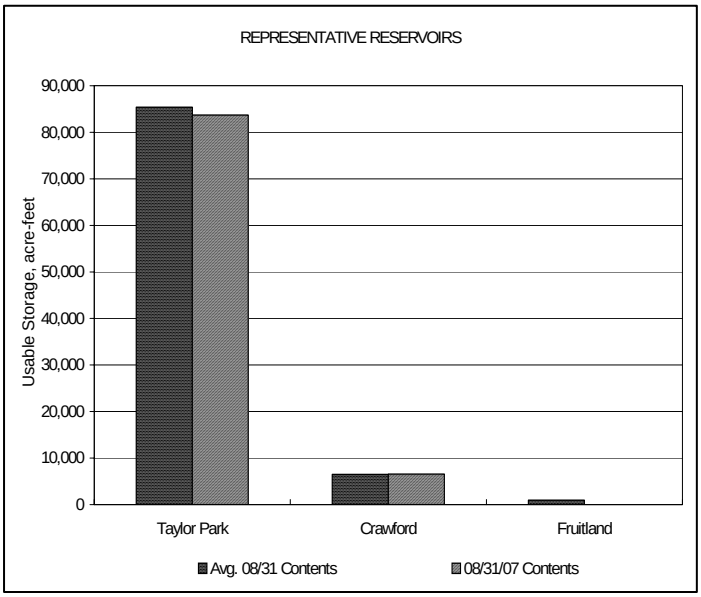
Administrative/Management Concerns

August is the wettest month of the year in western Colorado. Rainfall totals have been at or above average for most areas of the Gunnison Basin, with the exception of the East River Basin and its tributaries. August is haying season for most of the upper Gunnison River area, temporarily reducing demand for irrigation water. And, while the recent rains have helped natural streamflow improve somewhat, many farmers are contending with putting up hay and alfalfa in less than ideal conditions.

In addition, the monsoon rains and temporary reductions in demand due to hay cutting has helped users avoid a call from the Uncompahgre Valley Water Users Association at the M & D canal on the Uncompahgre River and the Gunnison Tunnel on the Gunnison River. Increased flow in the lower Gunnison River has also resulted in avoiding a call from The Redlands Power Canal.







Basinwide Conditions Assessment

The SWSI value for the month was –0.1. Flow at the gaging station Colorado River near Dotsero was 1509 cfs, as compared to the long-term average of 1777 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 107% of normal as of the end of August.

Outlook

An increase in precipitation contributed to increased stream flows throughout most of the basin. A decrease in agricultural, commercial and domestic irrigation may result. Accordingly, more water may be available to senior users.

Key reservoirs in the basin are steadily declining, but generally remain above average. Carry-over storage for next year is expected to be good. Ongoing releases will be required to create storage capacity for spring 2008 runoff. The releases will allow more junior users to remain in priority

Administrative/Management Concerns

Stream flow levels in the basin were generally below average throughout the month of August. However, an increase in precipitation generally boosted flows to average or above-average in the later part of the month. Higher precipitation and a reduced demand for trans-mountain water to the east slope have contributed to higher than normal reservoir level. This has allowed some flexibility for releases to meet downstream user needs.

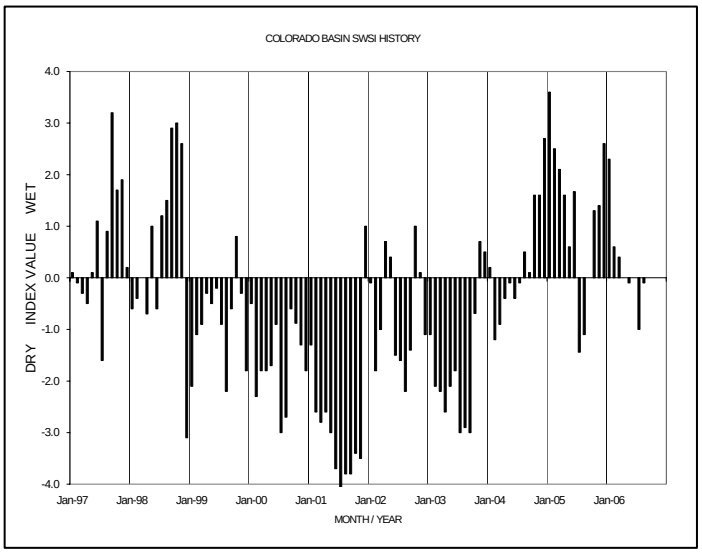
The Shoshone power plant remains offline with no associated call. Intermittent calls have occurred at Cameo to ensure water availability for Grand Valley irrigators. Reservoir releases may prevent the call from becoming more senior throughout the remainder of the irrigation year.

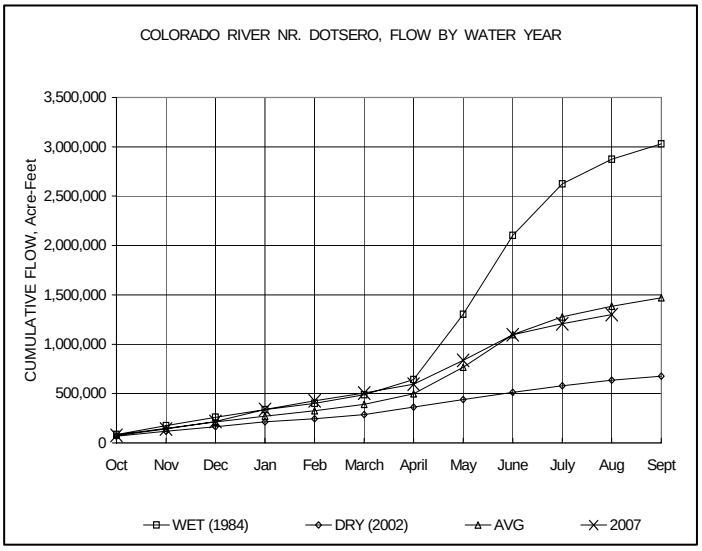
Division 5 implemented a well-enforcement program to curtail non-permitted uses of residential wells in Summit County. Compliance with well permits will reduce depletion of associated surface water and increase water available to downstream senior users.

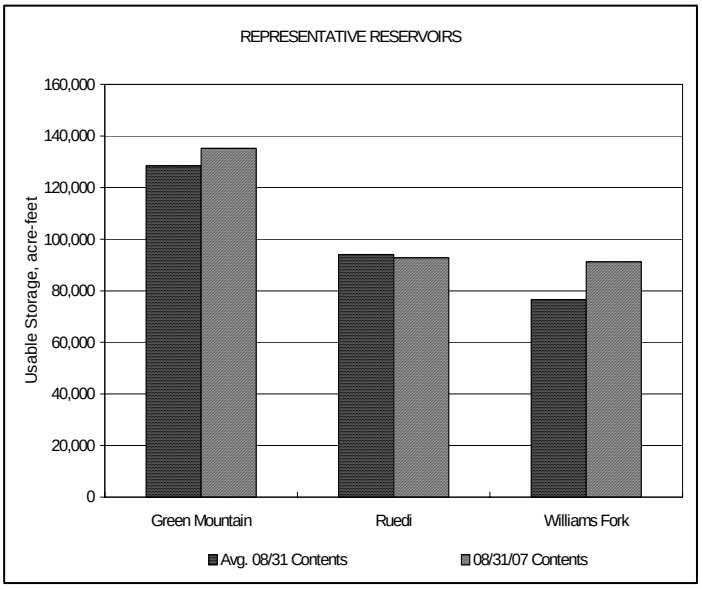
Public Use Impacts

The lower Fryingpan, Roaring Fork and Colorado Rivers were heavily colored through late August following a flash flood at Seven Castles Creek, which carried large volumes of sediment into the lower Fryingpan River on August 3rd. The fly-fishing industry was concerned about the insect reduction and resulting fish habitat degradation. The Division of Wildlife considered requesting a Ruedi Reservoir release increase from 250 to 800 cfs from the Bureau of Reclamation to "flush" the accumulated sediment. This decision has been delayed pending spring runoff which could produce naturally higher flows from snow melt and higher Fryingpan River releases.

Granby, Green Mountain, Wolford Mountain, and Williams Fork Reservoir releases resulted in successful 1200 cfs target flow rates for the Grand, Eagle, and Garfield County rafting industries through Labor Day. These releases have ended, with the exception of a 25 cfs/day contract release from Granby Reservoir for the Government HighLine Canal which indirectly increases flows for the Endangered Fish Critical Reach of the Grand Valley.





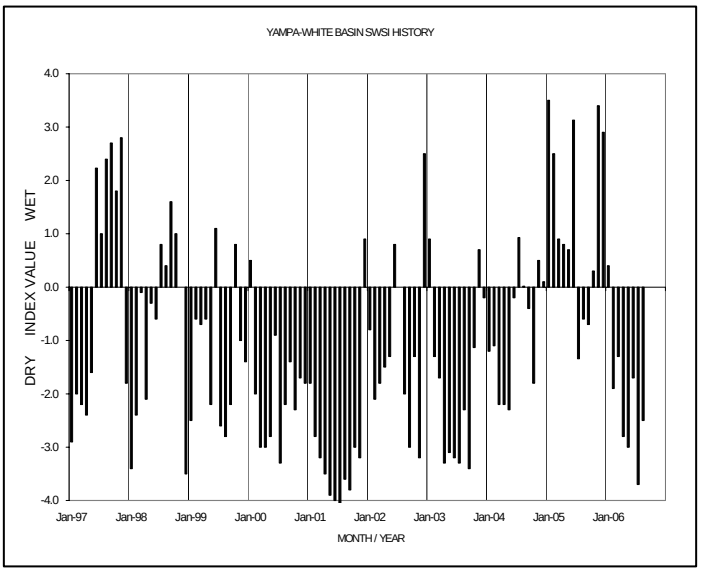


Basinwide Conditions Assessment

The SWSI value for the month was –2.5. Flow at the gaging station Yampa River at Steamboat was 60.4 cfs, as compared to the long-term average of 122 cfs.

August precipitation was above average for the Yampa, White, and North Platte River basins. Precipitation for the month, as measured at the SNOTEL sites operated by the NRCS, was reported at approximately 110% of average for the Yampa and White River basins and 117% of average for the North Platte River basin.

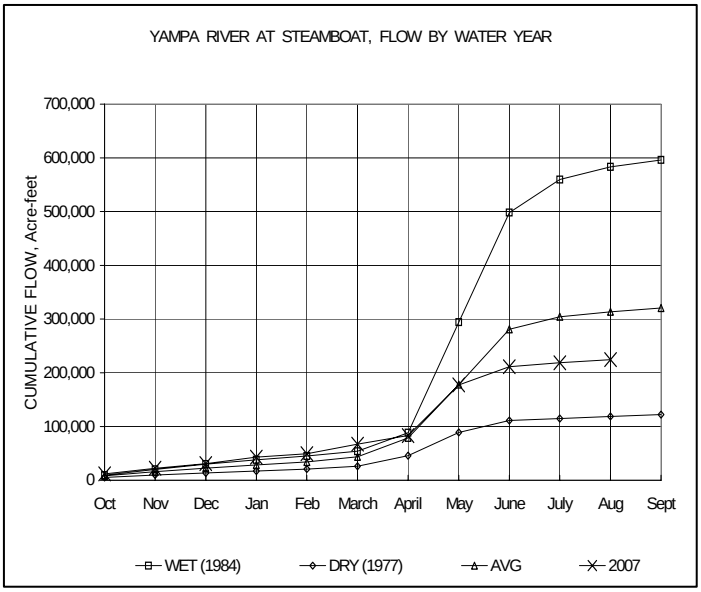
After several months of low flow conditions, streamflows throughout the basins generally approached average levels by mid-August due to the increase in afternoon thunderstorms in late July and early August. By the end of the month, however, precipitation decreased and streamflows were beginning to decline, once again, to below average levels.



Outlook

September temperature and precipitation forecasts for the area, based on NOAA data, are for generally normal temperatures and below normal to normal precipitation for the month.

Area reservoir levels continued to drop in August. Fish Creek Reservoir storage level at the end of August was reported at approximately 81% of capacity. Yamcolo Reservoir storage level continued to decline throughout August and the reservoir was at approximately 35% of capacity at the end of the month. Elkhead Creek Reservoir level also declined and the reservoir was at approximately 20,350 acre-feet or 82% of its' enlarged capacity (approximately 24,900 acre-feet) at the end of August. Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir for irrigation purposes, and Elkhead Creek Reservoir for municipal, industrial, recreation, and fish recovery releases.



Administrative/Management Concerns

Middle Hunt Creek, Bear River, Little Bear Creek, South Hunt Creek, Piceance Creek, Morapos Creek, Deer Creek, Newcomb Creek, Spring Creek, and Willow Creek remained under administration throughout the month of August.

The Colorado River District, on behalf of the Recovery Program, initiated the fish recovery release program from Elkhead Creek Reservoir this month. The River District conducted a test release in early August to determine potential transit losses in Elkhead Creek and the Yampa River downstream of Elkhead Creek. Subsequently, the Recovery Program requested a fish release of 50cfs on August 14 and requested that the release be increased to 75 cfs on August 24. Division 6 is responsible for protecting this water through the Yampa River critical habitat reach.

Public Use Impacts

Elkhead Creek Reservoir opened this spring for day-use fishing and recreational activities after being closed for almost two years.

Basinwide Conditions Assessment

The SWSI value for the month was 2.8. Flows at the Animas River at Durango averaged 890 cfs as compared to the long term average of 552 and had an average daily peak flow of 1990 cfs on August 8th. The Dolores River at Dolores averaged 275 cfs with an average daily peak flow of 647 cfs on August 6th. The La Plata River at Hesperus averaged 35.2 cfs with an average daily peak flow of 113 cfs on August 4th. At the end of the month Vallecito Reservoir contained 99,270 acre-feet compared to its normal contents of 69,280 acre-feet (143% of normal). McPhee Reservoir has 312,058 acre-feet compared to its normal contents of 273,880 acre-feet (114% of normal). Lemon Reservoir has 27,430 acre-feet as compared to its normal content of 22,271 acre-feet (123% of normal).

The monsoon season typically begins in July and continues into August. August is typically the wettest month of the year in the basin. This year Durango recorded 2.63 inches for the month which is slightly above the 30-year average of 2.59 inches. Precipitation to date in Durango, for the water year, is 17.10 inches which is slightly below the average of 17.57 inches. Temperatures in August were above normal for the month. Durango was 2.9° above its 30-year average high and 2.0° above its 30-year average low.

Outlook

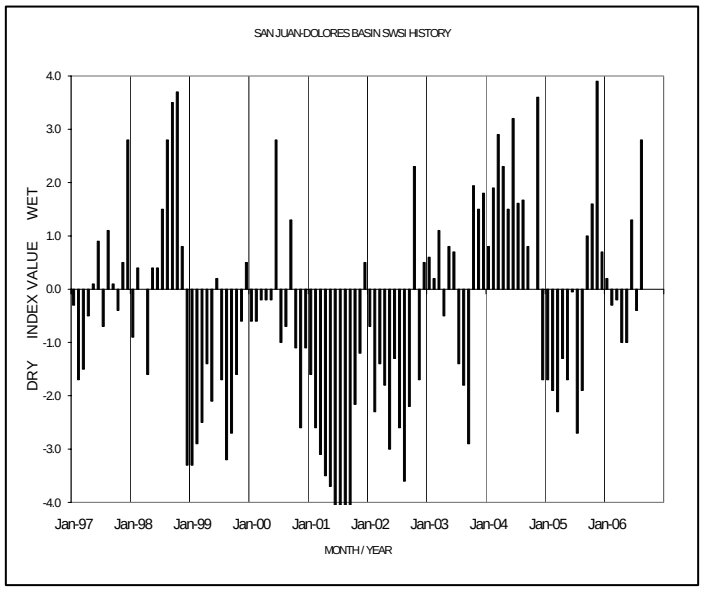
The monsoon rains of August were not disappointing this year. Rainfall for the month of August was normal but a dry spell at the end of August has continued into the first part of September.

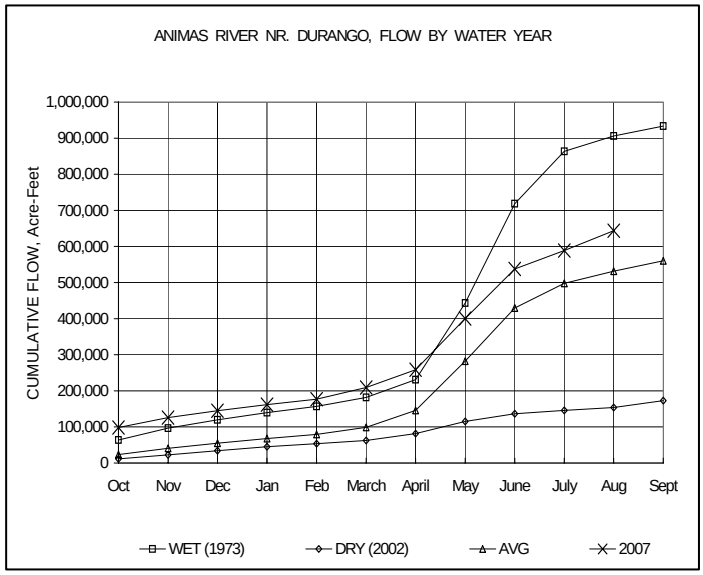
Administrative/Management Concerns

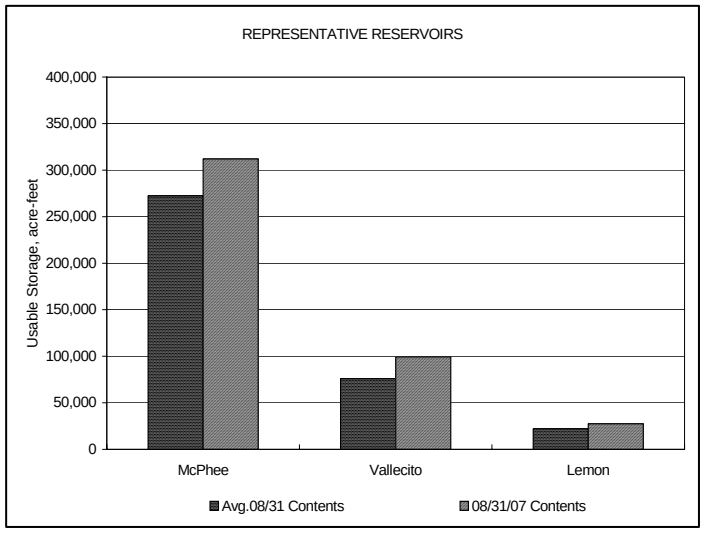
The La Plata compact continued to be on call the entire month of August. New Mexico placed a call for 80 cfs on May 22nd that continued for the entire month of August. All Colorado ditches were turned off on August 24th in order to stay in compliance with the La Plata compact. A rainstorm on August 28th was sufficient to get No. 5 water right in and keep it in the remaining part of the month.

Public Use Impacts

With summer in full bloom, kayaking has continued to be observed by DWR staff on the Animas River.







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