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 2010

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 of May through October (June 1 through November 1). 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 August (September 1) range from a high value of +3.0 in the South Platte Basin to a low value of -1.3 in the Gunnison 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 value, while one of the basins (Gunnison) experienced a loss from the previous month's value.

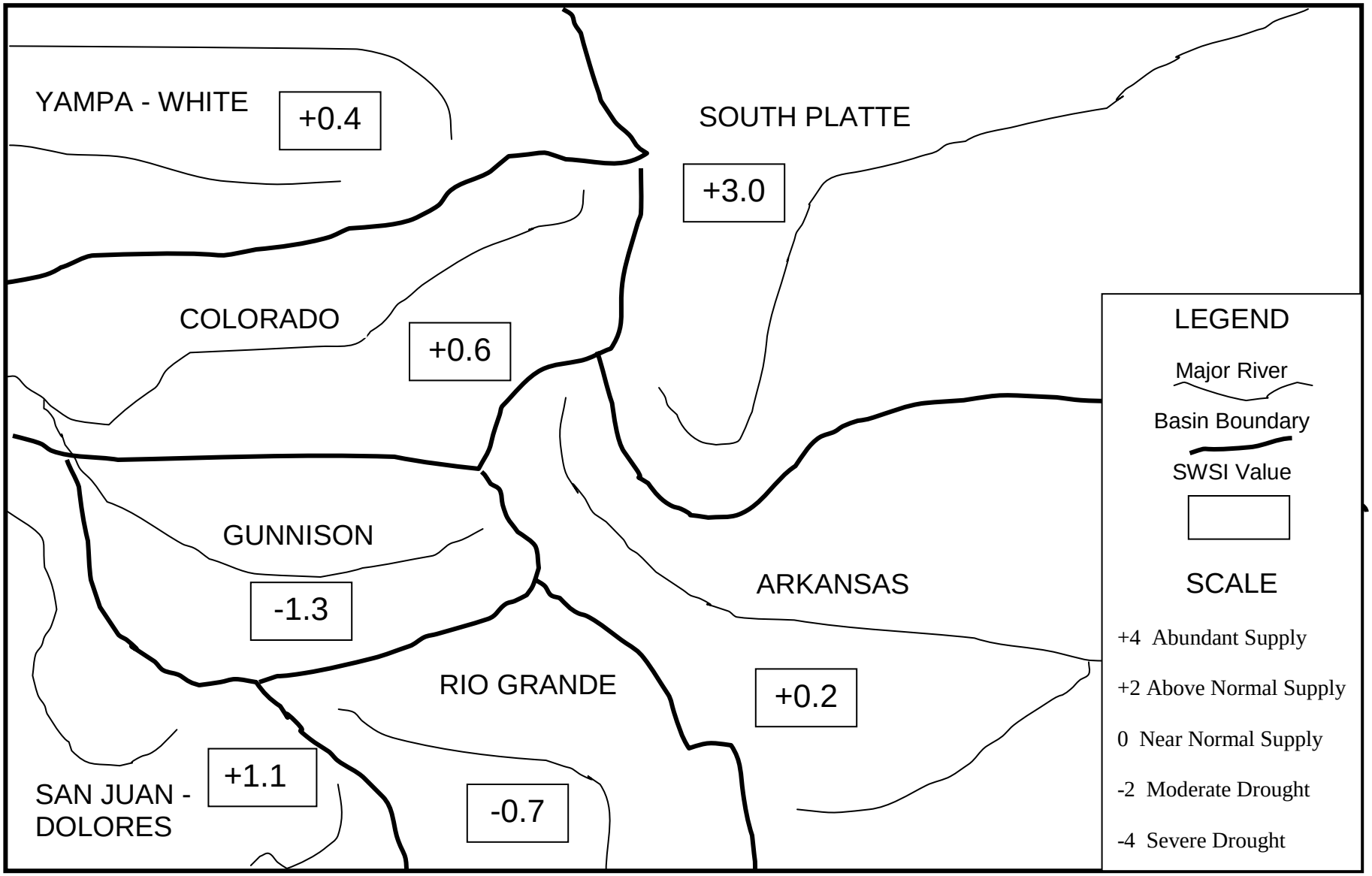
The following SWSI values were computed for each of the seven major basins for September 1, 2010, and reflect the conditions during the month of August.

Basin	September 1, 2010 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+3.0	+0.4	+0.5
Arkansas	+0.2	+1.3	+1.6
Rio Grande	- 0.7	+1.4	+1.2
Gunnison	- 1.3	- 0.2	+1.3
Colorado	+0.6	+1.3	- 0.1
Yampa/White	+0.4	+1.0	+2.8
San Juan/Dolores	+1.1	+3.7	+4.0

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



September 1, 2010

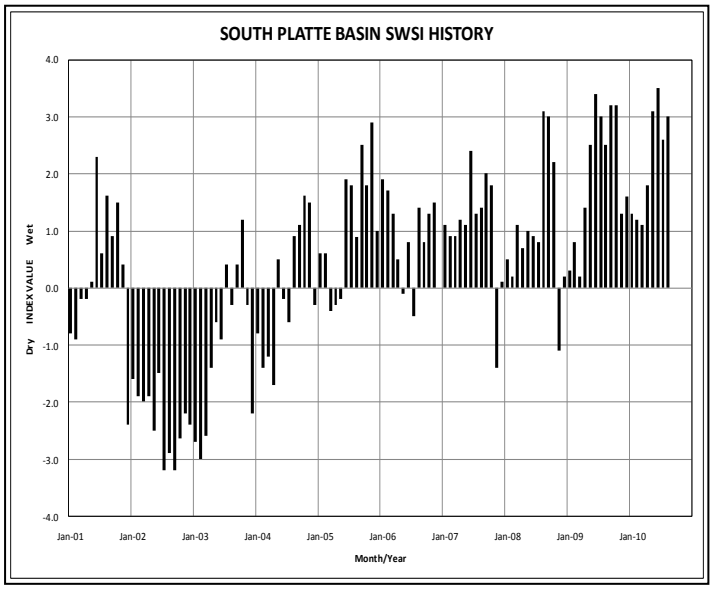
Basinwide Conditions Assessment

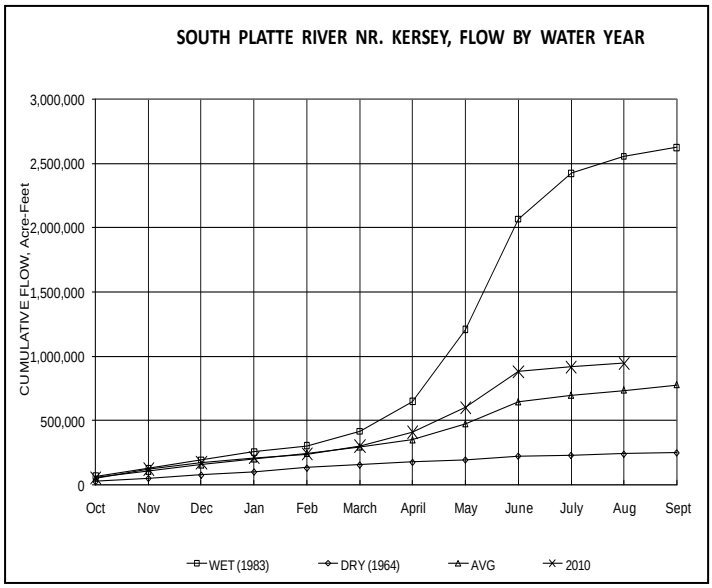
The SWSI value for the month was +3.0. Reservoir storage in Dillon, Horsetooth, Eleven Mile, Cheesman, Jackson, and Barr Lake, the major component in this basin in computing the SWSI value, was 112% of normal as of the end of August. Cumulative storage in the major plains reservoirs (Julesburg, North Sterling, and Prewitt) is at 50% 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 487 cfs, as compared to the long-term average of 508 cfs. Flow at the Colorado/Nebraska state line averaged 195 cfs.

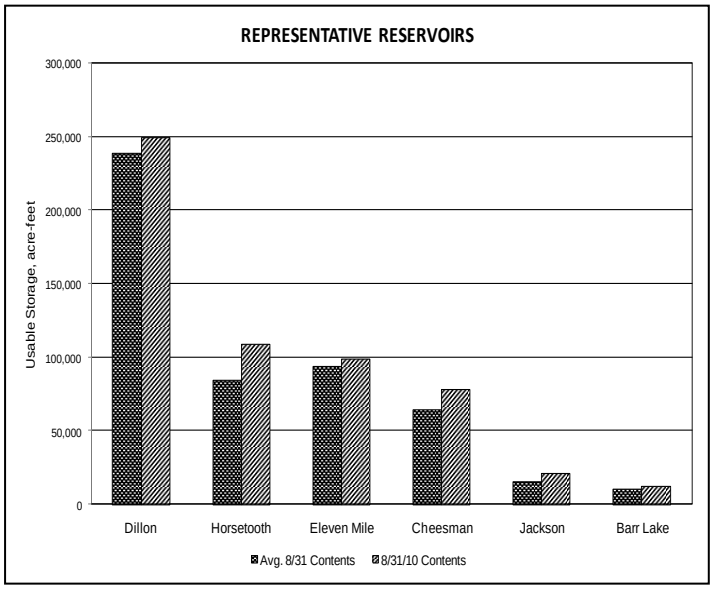
Outlook

August started out with fairly normal weather conditions, but moved rapidly to warmer and drier than normal. Stream flow conditions at the Kersey gage went from generally above average for the first part of the month to about one-half of average by the end of August. The call for water on the main stem of the South Platte was fairly normal, though it was generally more junior on the lower end of the river as evidenced by the compact call at Julesburg only being on for four days during the month.

Storage in the major reservoirs (agricultural and municipal) above Kersey remained slightly higher than last year, which was in turn above average for many years. Storage in the major reservoirs below Kersey was less than last year, but still high enough that it should provide enough carryover to allow a good start to filling for Irrigation Year 2011.

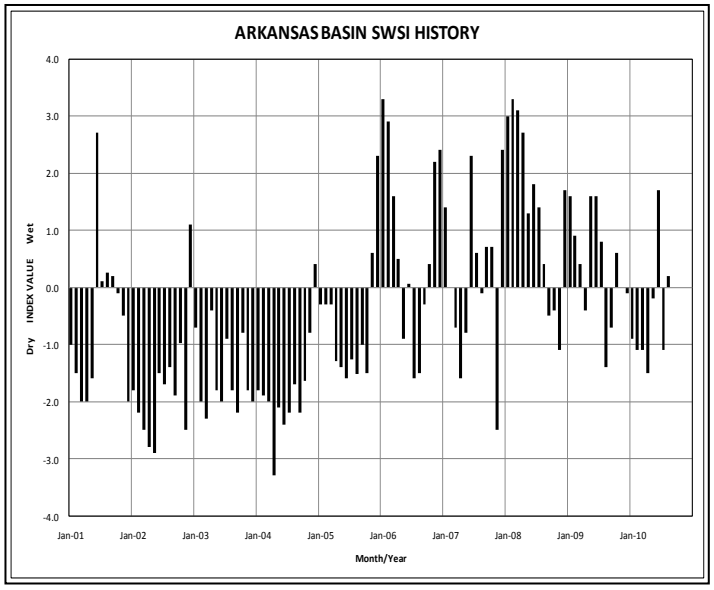


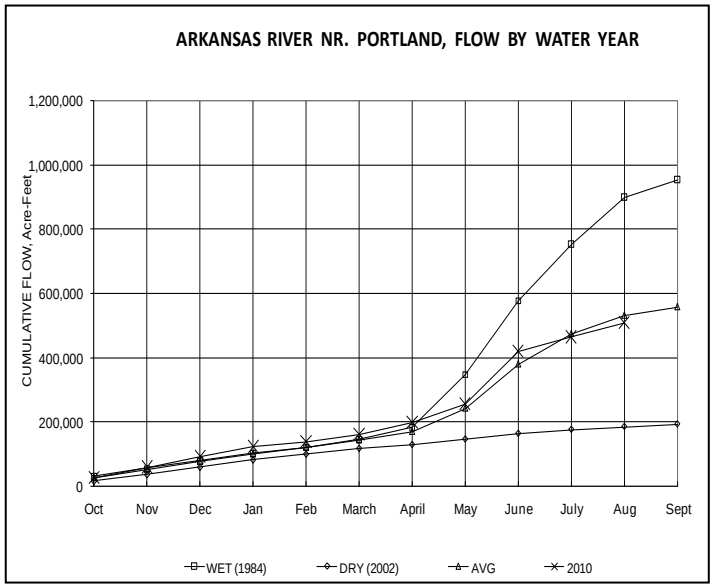


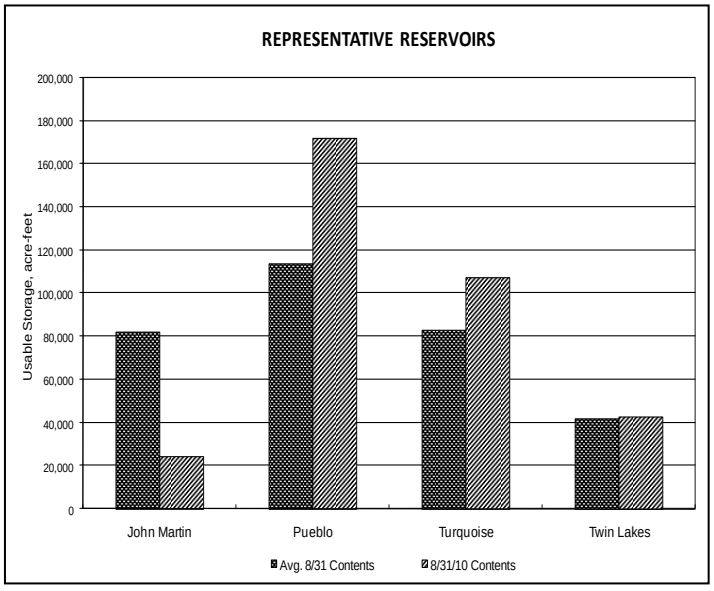


Basinwide Conditions Assessment

The SWSI value for the month was +0.2. Flow at the gaging station Arkansas River near Portland was 721 cfs, as compared to the long-term average of 927 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 108% of normal as of the end of August.



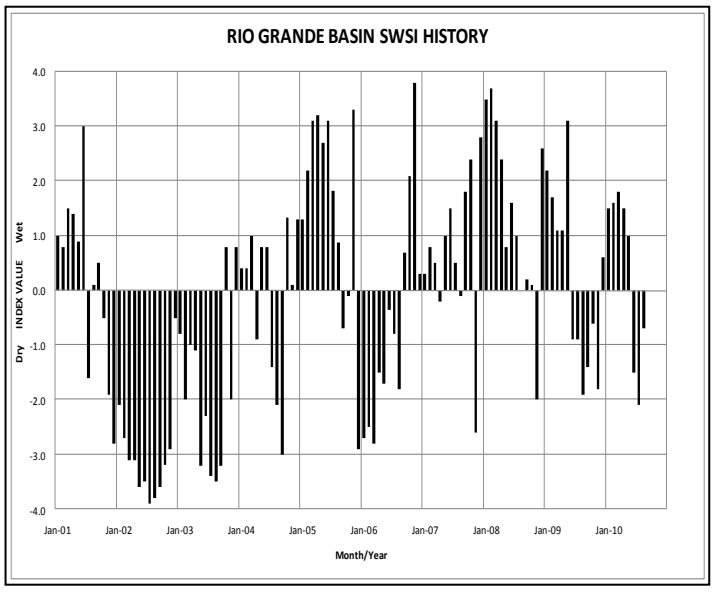




Basinwide Conditions Assessment

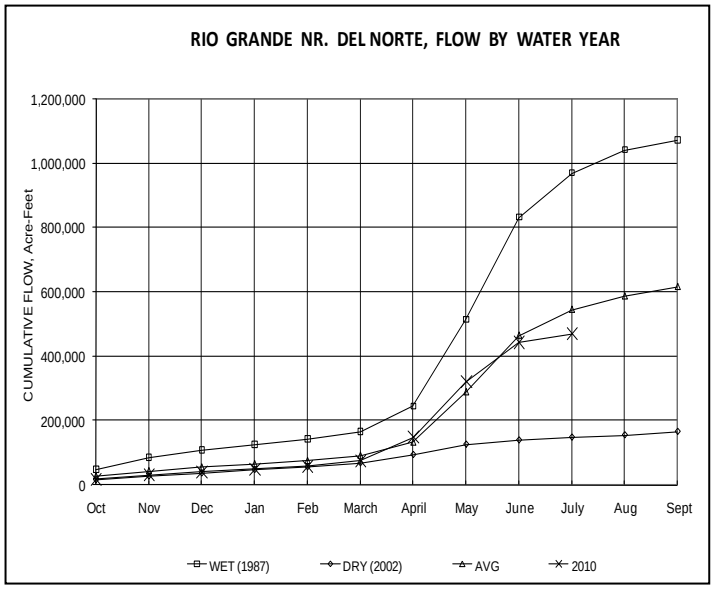
The SWSI value for the month was -0.7. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 114% of normal as of the end of August.

Flow at the gaging station Rio Grande near Del Norte averaged 524 cfs (66% of normal). The Conejos River near Mogote had a mean flow of 203 cfs (100% of normal). Streamflow in the upper Rio Grande basin was generally below average during August as rainfall on the mountains and plains was scarce after rainstorms early in the month. The Conejos River had near-average flow due only to storage releases from Platoro Reservoir for irrigation demand. Runoff throughout the basin has been poor since June 1, but strangely, some medium-sized drainages such as LaJara Creek near Capulin, Goose Creek near Creede, and Rito Alto Creek near Crestone had average runoff during August. The reason for this must be due to localized rainfall.



Outlook

The month of August had warmer and drier conditions when compared to long-term records. Year to date precipitation is below normal for the San Luis Valley. NOAA weather forecasts for the next month and beyond call for below precipitation and warmer than normal temperatures.

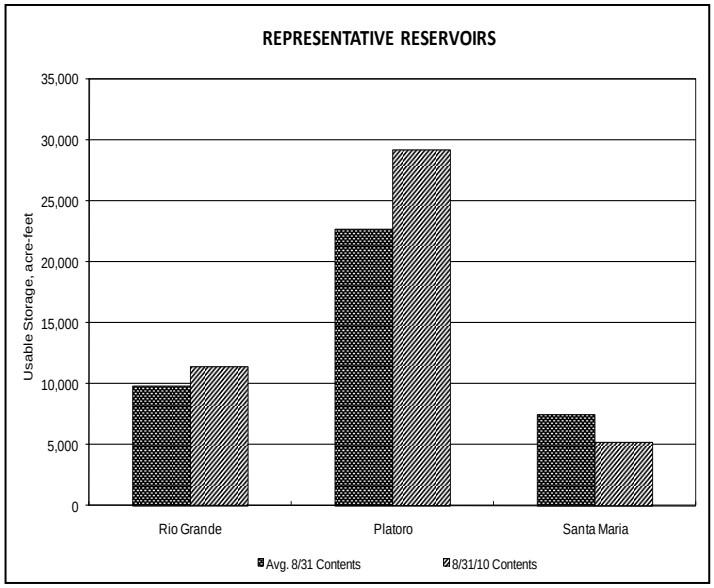


Administrative/Management Concerns

The San Luis Valley Well Rules Advisory Committee continues to meet on a near-monthly basis in Alamosa. This group of appointees is tackling the task of crafting rules governing the withdrawal of ground water in Water Division 3. Implementation of these rules will require non-exempt well users to replace all injurious depletions from the use of their wells. The formation of groundwater management subdistricts is one avenue to accomplish this goal. The management plan of Subdistrict No. 1, the Closed Basin area, was conditionally approved by Water Judge O. John Kuenhold on May 27, 2010. That decision has been appealed to the Supreme Court.

Public Use Impacts

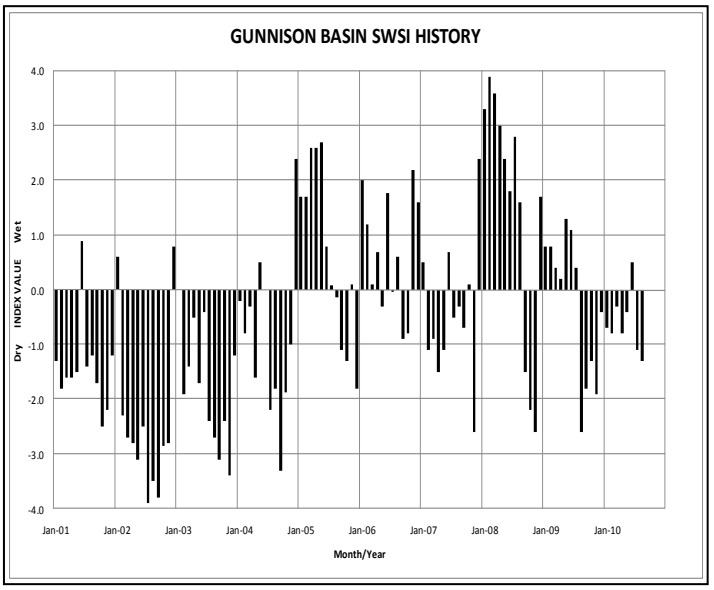
Although the early runoff season was better than normal, many irrigators felt the pinch of dry conditions and ditches going out of priority. Reservoir releases, if available, and well pumping helped meet the heavy demand for irrigation supplies during the latter part of the irrigation season. As autumn approaches, this demand eases as farmers continue their harvest.



Basinwide Conditions Assessment

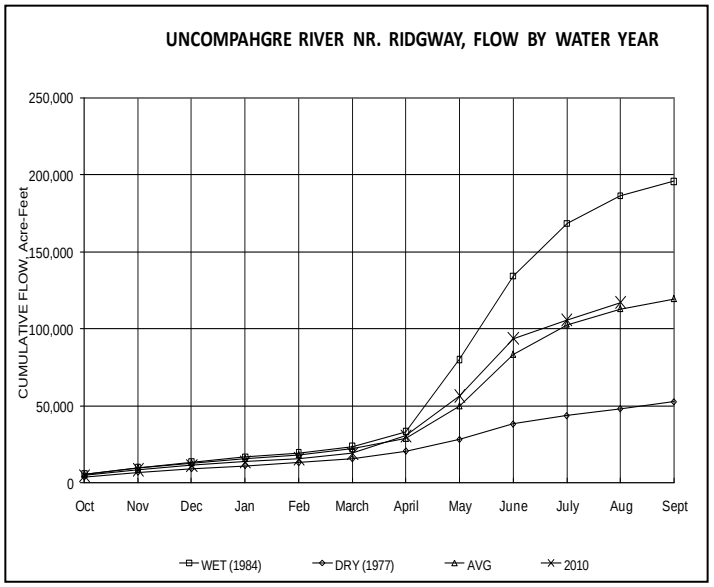
The SWSI value for the month was -1.3. Flow at the gaging station Uncompahgre River near Ridgway was 181 cfs, as compared to the long-term average of 164 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 95% of normal as of the end of August.

The first three weeks of August included wet monsoon conditions in most areas of the Gunnison and San Miguel basins, which boosted streamflows from their July levels. According to the Colorado Basin River Forecast Center (CBRFC), total August precipitation was above average for all of the Gunnison and San Miguel River Basins. In fact, most areas received between 129 and 150 percent of normal precipitation during the month of August. Conditions dried out in the last week of August, however, and streamflows have steadily decreased since that time. Precipitation in the Gunnison basin during the water year beginning in November of 2009 currently stands between 90 and 110 percent of average depending on location.



Outlook

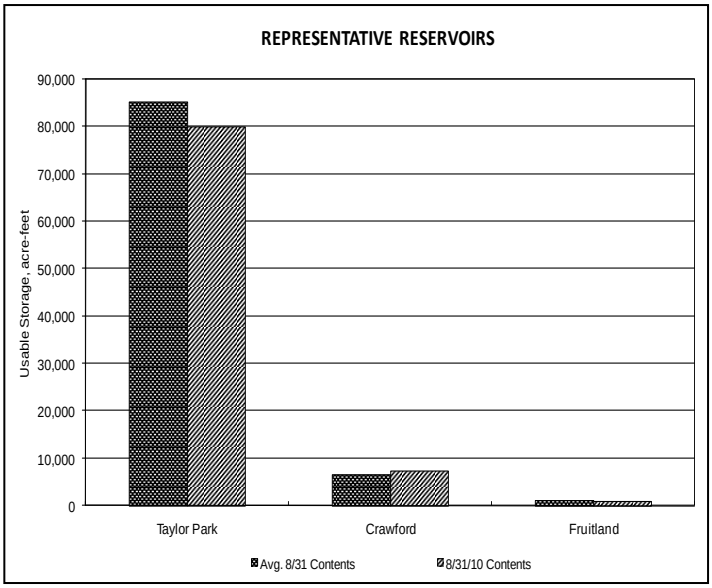
Due to La Nina conditions in the Pacific, the National Weather Service Climate Prediction Center continues to predict above average temperatures and below average precipitation for the Gunnison and San Miguel basins during the 30 and 90 day outlook periods. Their prediction includes a higher probability of below average precipitation during the 30 day period as the Gunnison basin is clearly with the below average area for the 30 day period, but appears to be on the fringe of the below average area during the 90 day outlook. If these forecasts are correct the beginning of the snowpack season may be warm and dry, however, long range forecasts are typically fairly uncertain and snowpack varies widely during each season.



Administrative/Management Concerns

The above average precipitation prevented a larger than average drawdown in reservoir storage during August and helped prevent shortages on some streams, carrying many irrigators through to the harvest. Consequently, most basin reservoirs remain near average levels for this time of year.

Many farms and ranches have completed harvesting this fall even though some, particularly in the higher elevations, had difficulty getting their hay harvested during the wet weather. Drier weather during the last week of August and into September has caused some additional streams to go on call. For example, the CWCB called their Slate River minimum instream flow right in mid September and the Highline Ditch called the San Miguel at a similar time as their users are irrigating to increase soil moisture and grow pasture grass prior to the winter season.

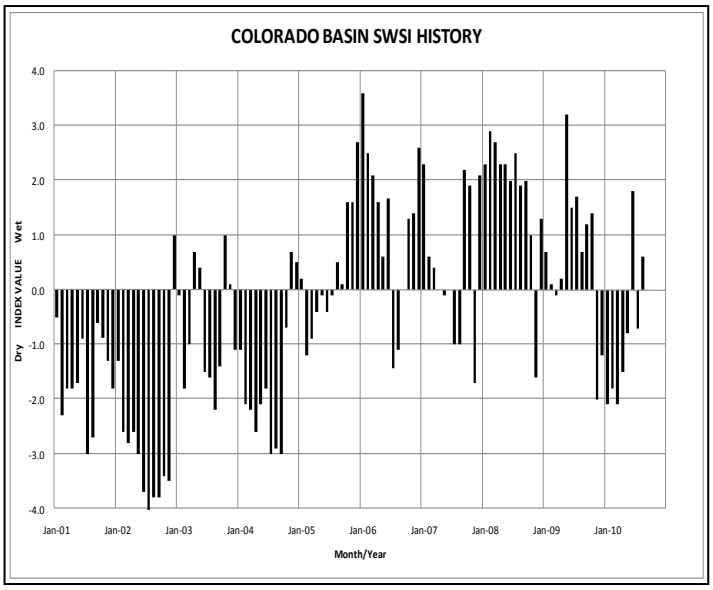


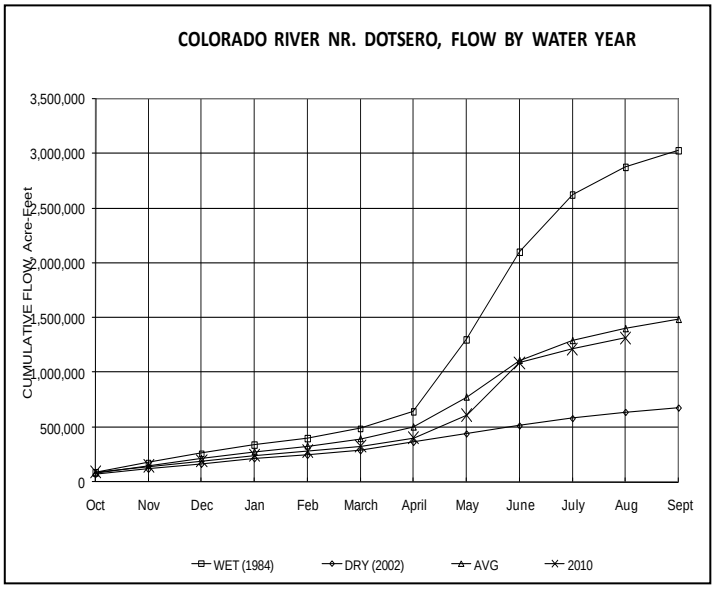
Public Use Impacts

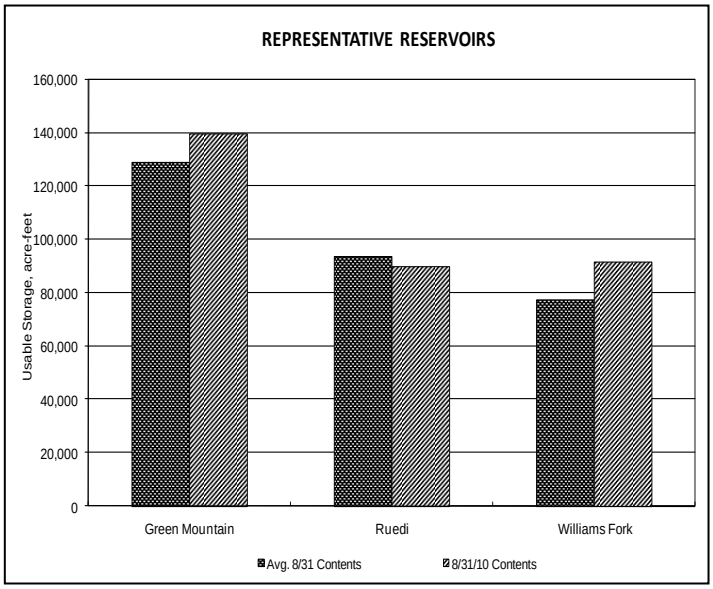
At the Aspinall Unit Operations meeting it was stated that releases from Taylor Park Reservoir would be reduced to between 25 and 50 cfs for fish sampling between September 27th and 30th. In addition, the Western Area Power Administration warned that flows through their turbines at Aspinall Unit dams may fluctuate more than usual due to an increased need for peaking power caused by the lower flows through Glen Canyon Dam's turbines. Anglers and other recreational users below Blue Mesa Dam should be aware of the potential for flows to suddenly increase.

Basinwide Conditions Assessment

The SWSI value for the month was +0.6. Flow at the gaging station Colorado River near Dotsero was 1627 cfs, as compared to the long-term average of 1769 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 107% of normal as of the end of August.





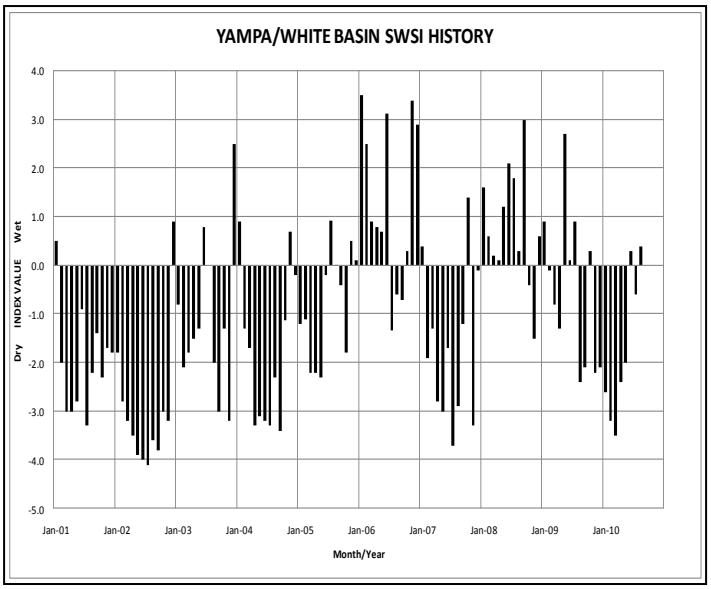


Basinwide Conditions Assessment

The SWSI value for the month was +0.4. Flow at the gaging station Yampa River at Steamboat was 292 cfs, as compared to the long-term average of 374 cfs.

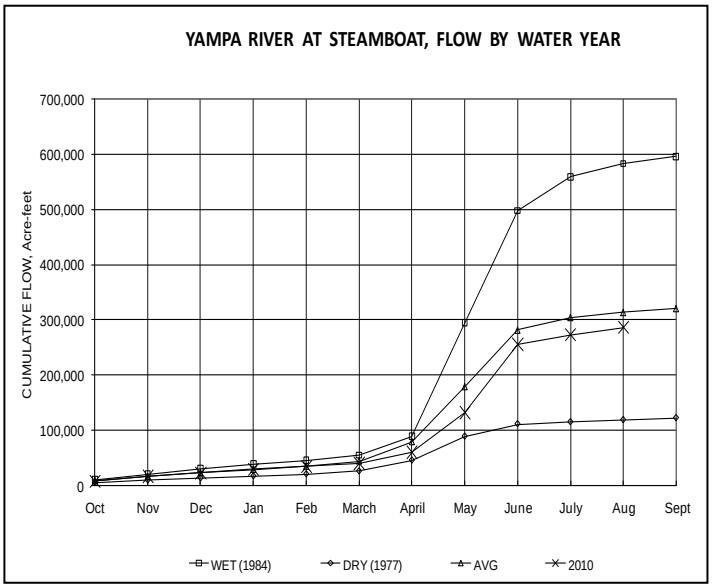
August precipitation was above average in the Yampa, White, and North Platte River basins. Precipitation for the month, as measured at the SNOTEL sites operated by NRCS, was reported at approximately 132% of average for the Yampa/White River basin and 130% of average for the North Platte River basin. Precipitation for the combined Yampa, White, and North Platte River basins was 97% of average for the water year to-date.

For the most part temperatures were below average for the month of August. In the upper region of the Yampa River, daily high temperatures for the month rarely exceeded 90° F. Despite the well above average precipitation in the Yampa and White River basins, only the Yampa at Steamboat Springs was above average (primarily due to additional releases being made from Stagecoach Reservoir), while on the Yampa River near Maybell flows were at or near average and the flows in the White River were well below average. On the North Platte River, the flows were well below average.



Outlook

At the end of August, Fish Creek Reservoir was storing 3,534 AF. The capacity of Fish Creek Reservoir is 4,167 AF. Yamcolo Reservoir released a significant amount of water during the irrigation season, most of which occurred in the month of July. At the end of August, 5,115 AF remained in storage. The capacity of Yamcolo Reservoir is 9,580 AF. At the end of August, Elkhead Creek Reservoir was storing 24,370 AF or 0.6 feet below spill. The capacity of Elkhead Creek Reservoir is 24,778 AF. Stagecoach Reservoir released a significant amount of water throughout August in preparation for construction of an enlargement of the spillway. The reservoir level is to be dropped 15 feet before construction begins. The capacity of Stagecoach Reservoir is 33,275 AF. Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir for irrigation purposes, Elkhead Creek Reservoir for municipal, industrial, recreational and fish recovery purposes and Stagecoach Reservoir is primarily used for recreation though a significant amount of water stored is allocated for municipal, industrial, irrigation and augmentation uses.



Administrative/Management Concerns

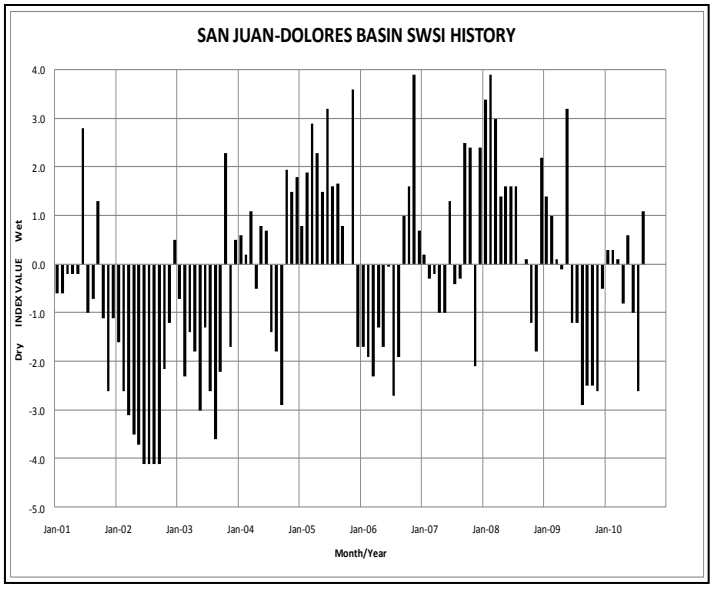
The usual administration has occurred this summer throughout all of Division 6 with the exception of Piceance Creek, which to date has not gone on call. Currently there are no streams under administration in the North Platte River or White River basins; however, there are several streams under administration in the Yampa River (and Green River) basin(s).

Public Use Impacts

Summer is a huge time for tubing on the Yampa River. Anglers are also seen on the Yampa River but in fewer numbers through the town of Steamboat due to the large number of tubers. As mentioned above, Stagecoach Reservoir will be under construction this fall to enlarge the reservoir by adding 4-feet to the existing spillway. Upper Yampa Water Conservancy District is preparing for this construction by releasing additional flow out of the reservoir so as to lower the water level to approximately 15-feet below spill. These releases began on or near July 15 at a rate of approximately 142 cfs.

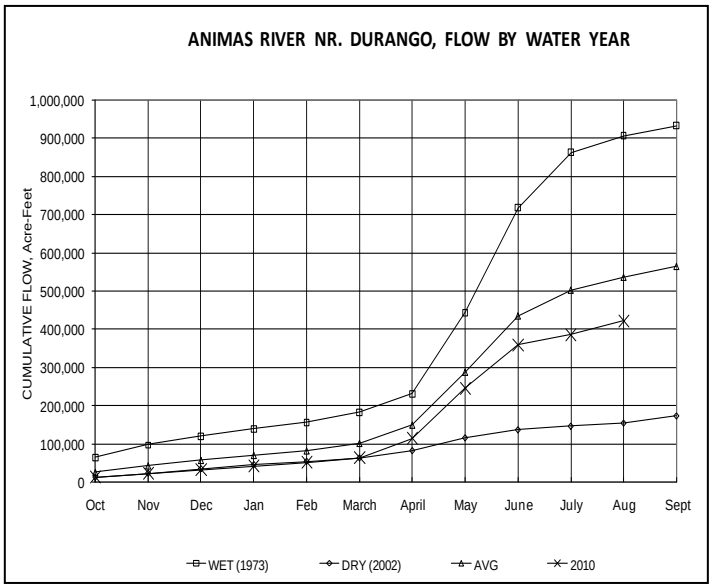
Basinwide Conditions Assessment

The SWSI value for the month was +1.1. Flows at the Animas River at Durango averaged 572 cfs (98% of average). The flow at the Dolores River at Dolores averaged 253 cfs (103% of average). The La Plata River at Hesperus averaged 25.0 cfs (108% of average). Precipitation in Durango was 4.08 inches for the month, 150% of the 30-year average of 2.72 inches. Precipitation to date in Durango, for the water year, is 20.33 inches. The average high and low temperatures for the month of August in Durango were 81° and 51°. In comparison, the 30-year average high and low for the month is 84° and 52°. At the end of the month Vallecito Reservoir contained 90,100 acre-feet compared to its average content of 75,530 acre-feet (108% of average). McPhee Reservoir was up to 309,991 acre-feet compared to its average content of 278,774 (111% of average), while Lemon Reservoir was up to 15,720 acre-feet as compared to its average content of 22,159 acre-feet (71% of average).



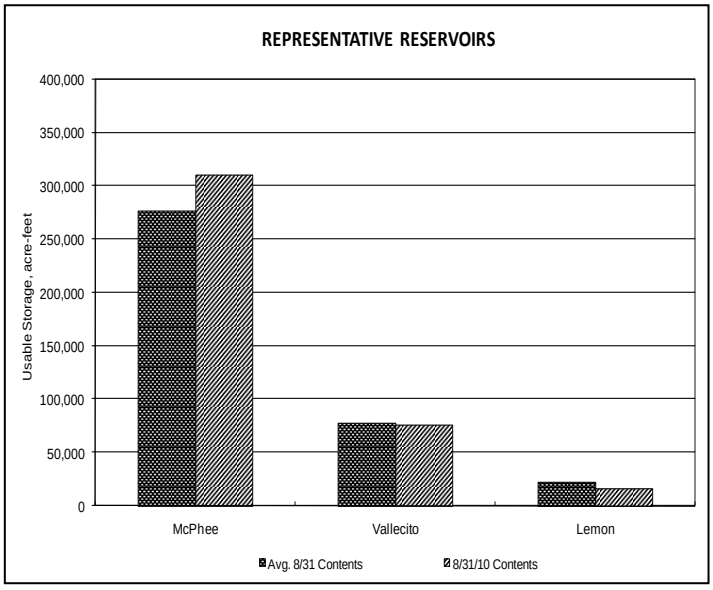
Outlook

August is typically one of the wetter months of the year in Division 7 and this year was no exception. This year August was the 17th wettest out of 116 years of record.



Administrative/Management Concerns

The La Plata River compact between Colorado and New Mexico remained on call for the entire month. The compact requires that half the flow at the upper index gages (Hesperus and above) must be delivered across the Stateline the following day.



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