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 2009

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 +2.5 in the South Platte Basin to a low value of -2.9 in the San Juan/Dolores Basin. All seven of the basins (South Platte, Arkansas, Rio Grande, Gunnison, Colorado, Yampa/White, and San Juan/Dolores) experienced a loss from the previous month's values.

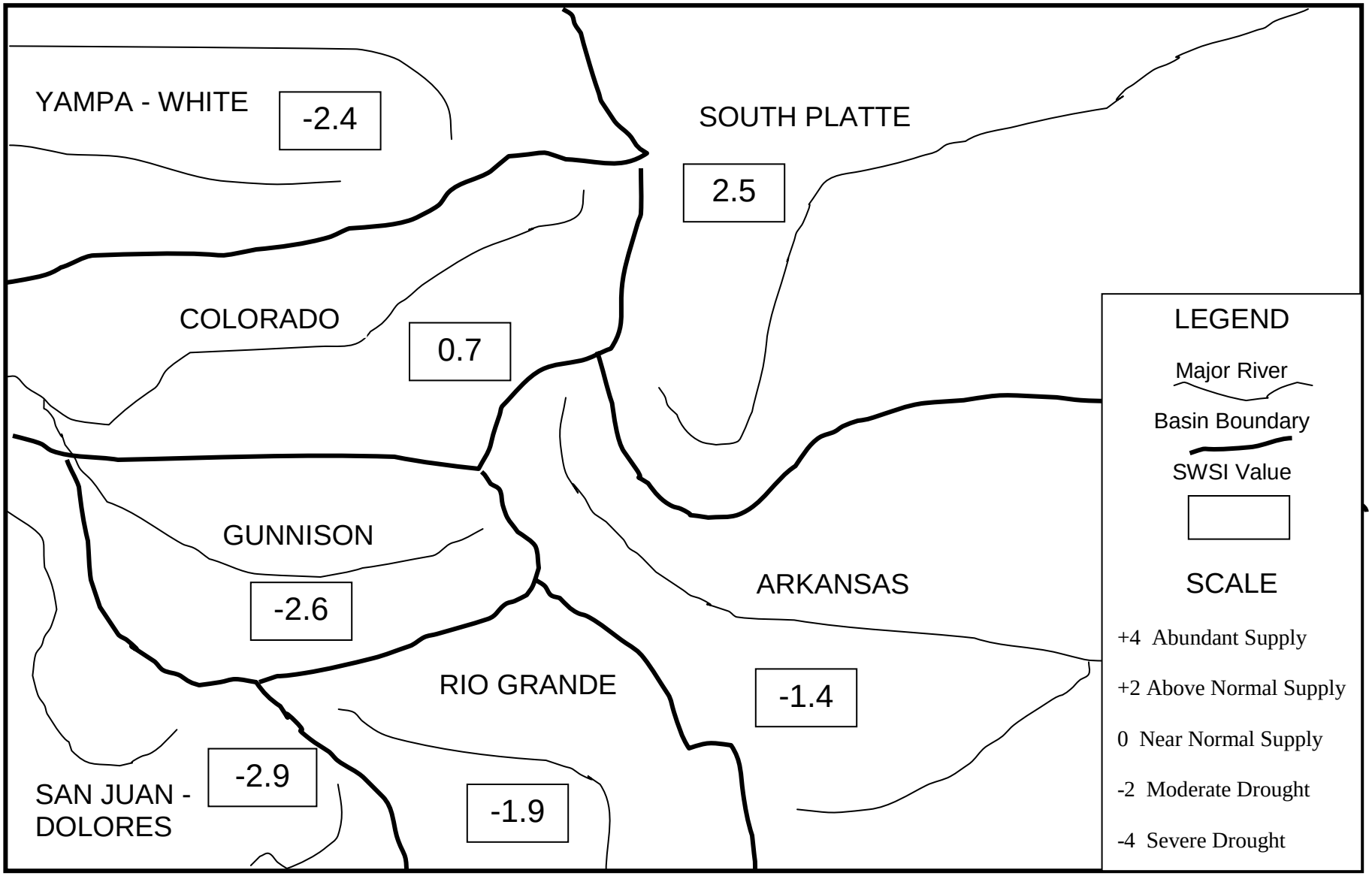
The following SWSI values were computed for each of the seven major basins for September 1, 2009, and reflect the conditions during the month of August 2009.

Basin	September 1, 2009 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	2.5	- 0.5	- 0.6
Arkansas	- 1.4	- 2.2	- 1.8
Rio Grande	- 1.9	- 1.0	- 1.9
Gunnison	- 2.6	- 3.0	- 4.2
Colorado	0.7	- 1.0	- 1.2
Yampa/White	- 2.4	- 3.3	- 2.7
San Juan/Dolores	- 2.9	- 1.7	- 2.9

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, 2009

Basinwide Conditions Assessment

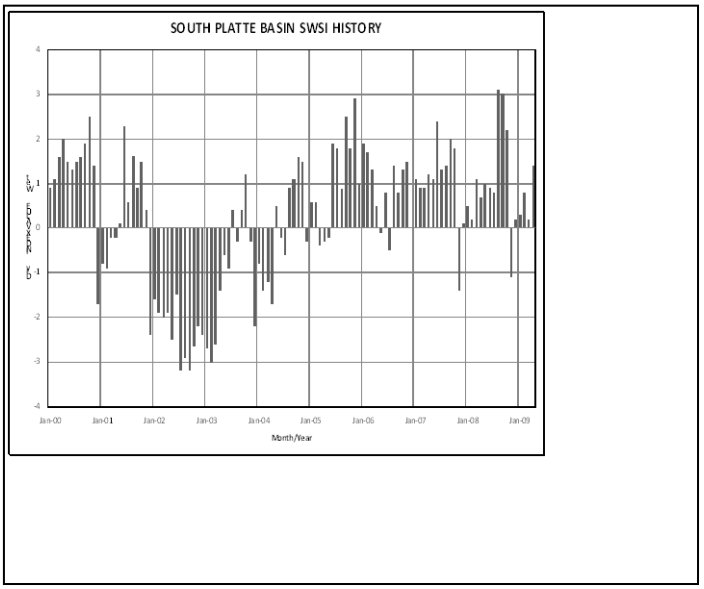
The SWSI value for the month was 2.5. Reservoir storage in Dillon, Horsetooth, Eleven Mile, Cheesman, Jackson, and Barr Lake, the major component in this basin in computing the SWSI value, was 112% of normal as of the end of August. Cumulative storage in the major plains reservoirs (Julesberg, North Sterling, and Prewitt) is at 60% of capacity. Cumulative storage in the major upper-basin reservoirs (Cheesman, Eleven Mile, Spinney, and Antero) is at 97% of capacity. Flow at the gaging station South Platte River near Kersey was 385 cfs, as compared to the long-term average of 503 cfs. Flow at the Colorado/Nebraska state line averaged 237 cfs.

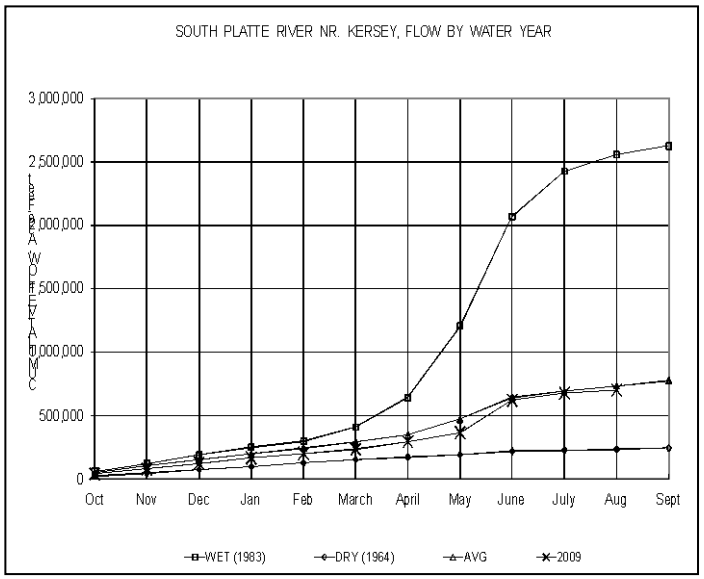
Outlook

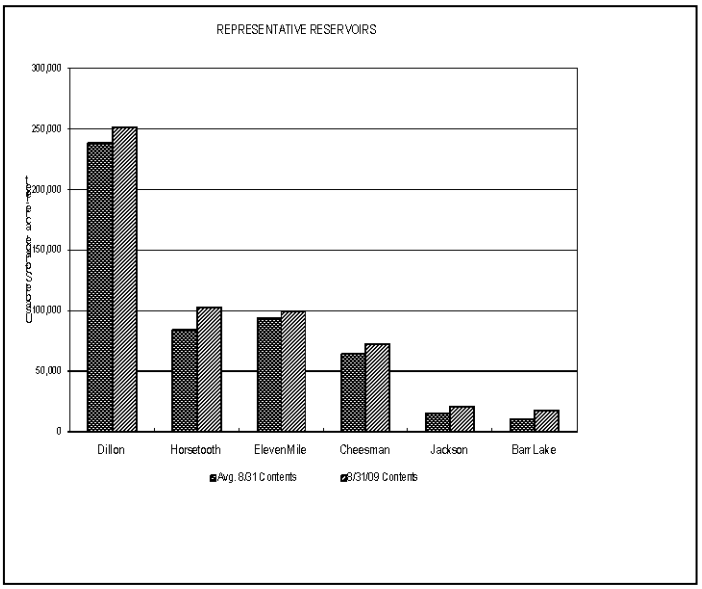
Weather condition were slightly cooler and drier than average in August. However, water supply conditions remained very good during the month due to the very wet proceeding months. The call for water on the main stem of the South Platte remained more junior than most years especially during the last decade. Further, there has not been a compact call on the lower end of the South Platte at Julesburg since the end of May. The last year to compare favorably with these flow conditions at Julesburg is 1999.

Because of this year's favorable conditions, the major municipal reservoirs above Denver area remain nearly full and higher than in many years. Other municipal and irrigation reservoirs also have significant storage reserves for this time of year which should provide adequate water for the remainder of this year with significant carryover providing a good start to the following water year.

The primary concern remaining for farmers in addition to prices for crops is an early frost as the growth of corn is behind due to the cool summer.







Basinwide Conditions Assessment

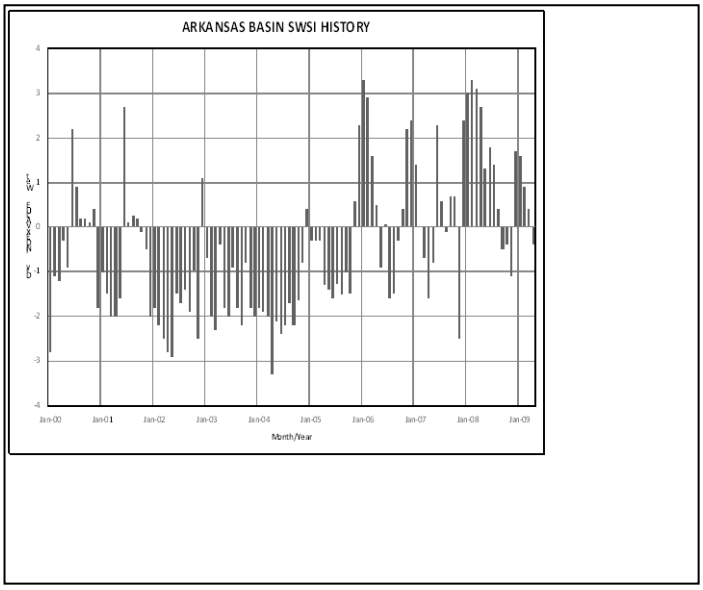
The SWSI value for the month was -1.4. Flow at the gaging station Arkansas River near Portland was 523 cfs, as compared to the long-term average of 936 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 108% of normal as of the end of August.

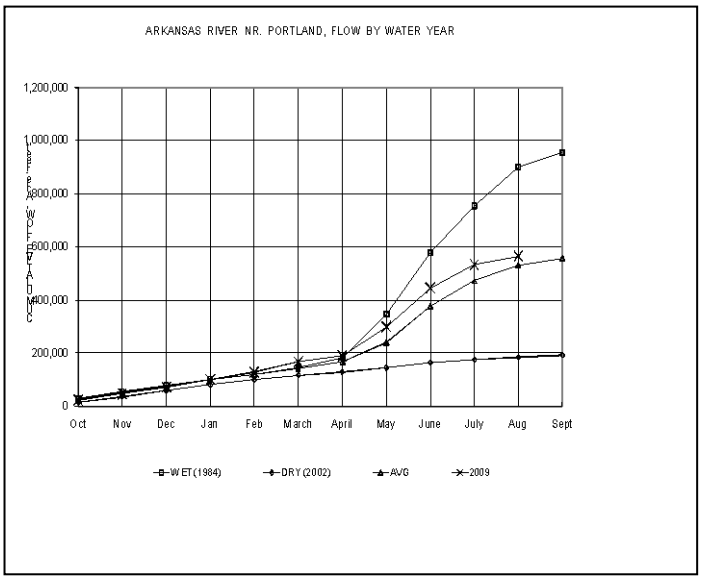
Outlook

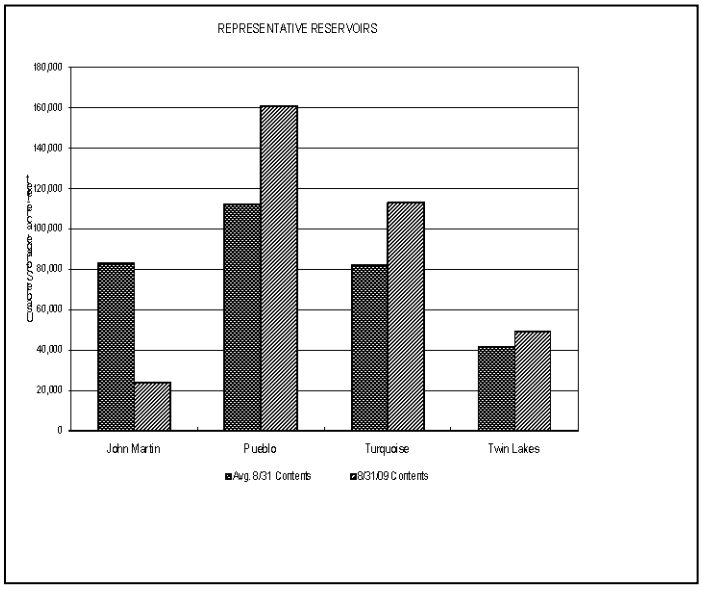
The Arkansas River call began the month set at the Amity #2, 4/1/1893 and ended as a split call (Catlin 12/3/1884 above John Martin Reservoir and Lamar 11/4/1886 below John Martin Reservoir). The river flows fell steadily through August.

Administrative/Management Concerns

River flows became low enough in late August to begin to interrupt exchanges into Pueblo Reservoir under the IGA (Inter Governmental Agreement) controlling major participants including Colorado Springs, Aurora and Pueblo Board of Water Works. Flows at this low range also cause concerns with the fishery through Pueblo and Division of Wildlife was an active participant in discussions about how to supplement flows if they became critical.



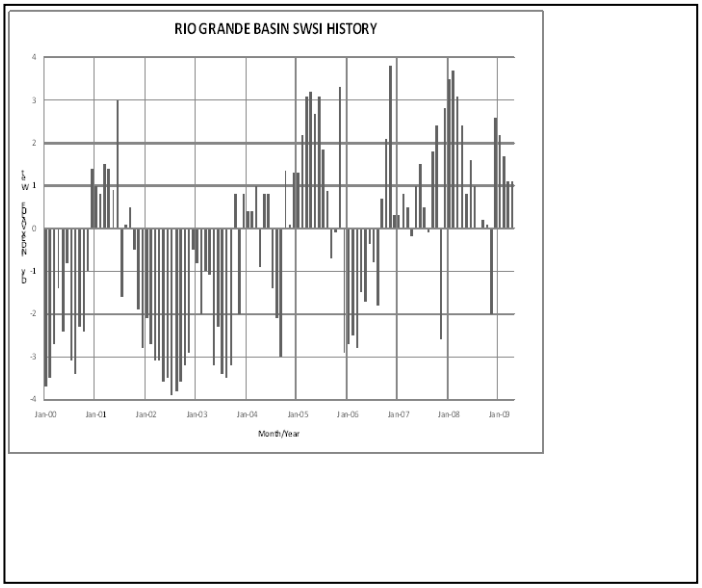




Basinwide Conditions Assessment

The SWSI value for the month was -1.9. Flow at the gaging station Rio Grande near Del Norte averaged 278 cfs (35% of normal). The Conejos River near Mogote had a mean flow of 257 cfs (126% of normal). But irrigation releases from Platoro Reservoir made up a large percentage of the flow in the Conejos River. In general, streamflow in the upper Rio Grande basin was only 25 to 50% of normal during August. Average temperatures and precipitation were lower than normal in the San Luis Valley during August.

Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 138% of normal as of the end of August.

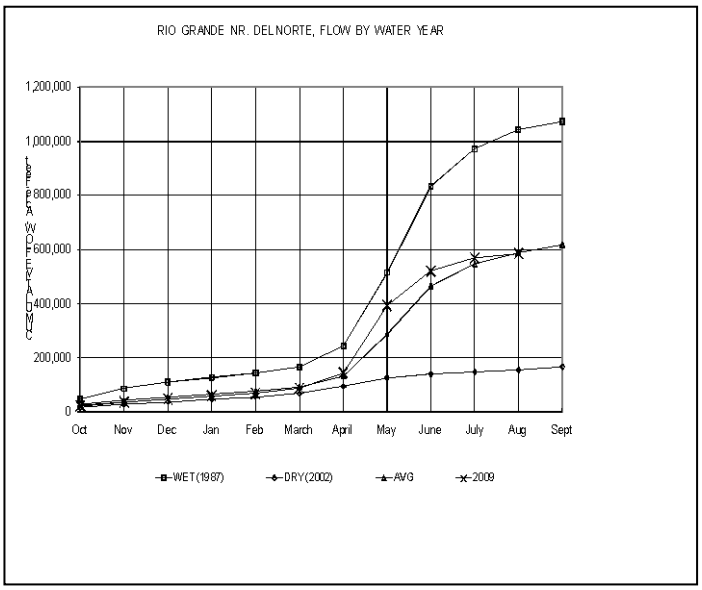


Outlook

The forecasted above-normal precipitation in the southern part of the State has not yet materialized. Thus, streamflow is extremely low. Administrators and water users are expecting below average stream flow for the next several months. The call for water from area streams should remain very senior until storage season begins near November 1.

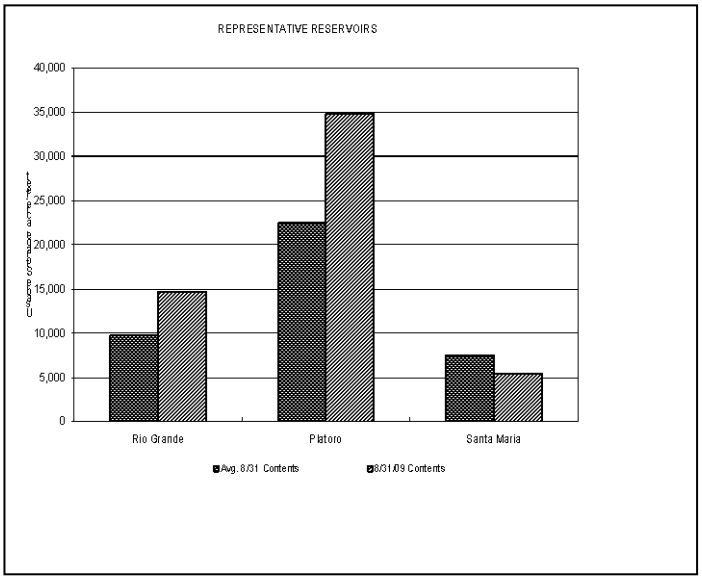
Administrative/Management Concerns

Monthly meetings of the San Luis Valley Well Rules Advisory Committee continue as the State Engineer points toward a December filing of the rules with the Water Court. Information regarding the rules and the committee can be obtained from the Division office or on the DWR website at www.water.state.co.us.



Public Use Impacts

After the early runoff in April and May, the aquifers of the upper Rio Grande basin were used extensively this year for irrigation supplies. Those irrigators with reservoir storage and/or wells were able to finish their crop irrigation. Crop yields are looking good this season.



Basinwide Conditions Assessment

The SWSI value for the month was -2.6. Flow at the gaging station Uncompahgre River near Ridgway was 77.1 cfs, as compared to the long-term average of 166 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 99% of normal as of the end of August.

Outlook

Above average reservoir levels at the beginning of the irrigation season have helped to bring the Gunnison River Basin water users through the generally dry summer of 2009. 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.

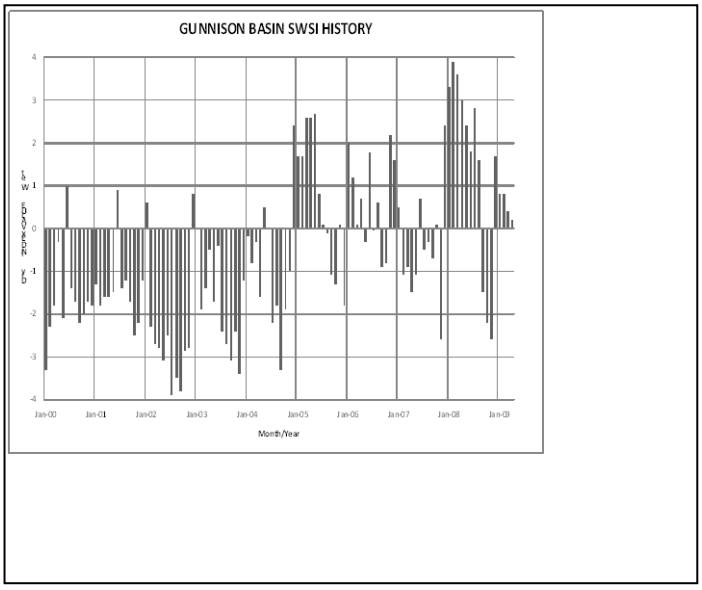
As of this report, "on-call" situations exist on many tributaries in the upper river basins. Especially affected by early and fast runoff conditions this year and lack of summer precipitation are the Upper Uncompahgre River and San Miguel River basins. For example, as of the end of August, the most junior water right in priority in the San Miguel River basin is 1929. By the end of August, Blue Mesa Reservoir was approximately 740,000 acre-feet or about 89% of capacity. Taylor Park Reservoir was approximately 83,000 acre-feet or about 78% of capacity.

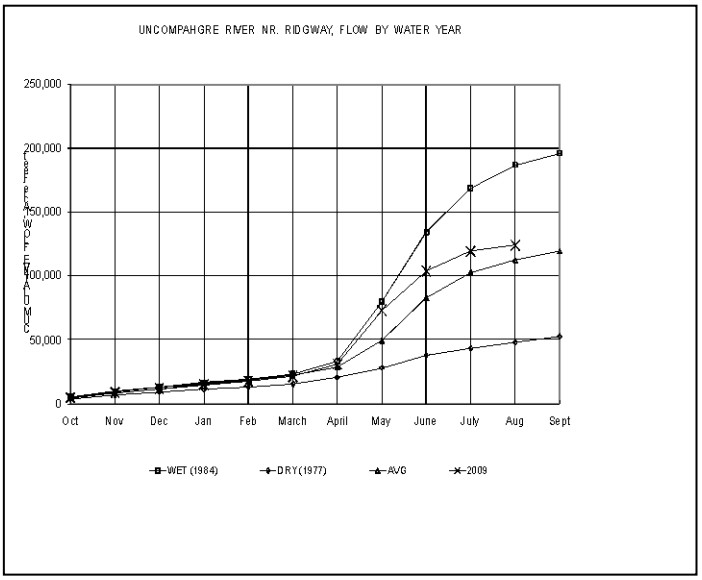
Administrative/Management Concerns

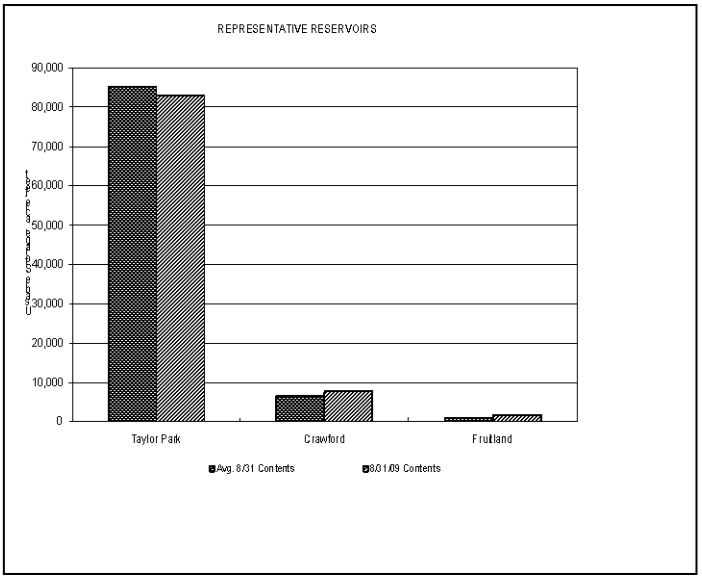
August is generally considered the wettest month of the year in western Colorado. Rainfall totals have been at or above average for most areas of the Gunnison Basin, with the exception of the Uncompahgre River and San Miguel River Basins and their tributaries. August is also haying season for most of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

Public Use Impacts

Labor Day weekend precipitation was significant in the Gunnison River basin. This moisture was especially beneficial in lowering the fire danger in much of the lower BLM public lands where fire bans were subsequently lifted. It appears that the basin escaped the summer without any major fire disasters, which was quite fortunate considering the very dry fuel conditions throughout most of the basin this summer.







Basinwide Conditions Assessment

The SWSI value for the month was 0.7. Flow at the gaging station Colorado River near Dotsero was 1,722 cfs, as compared to the long-term average of 1,769 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 103% of normal as of the end of August.

Outlook

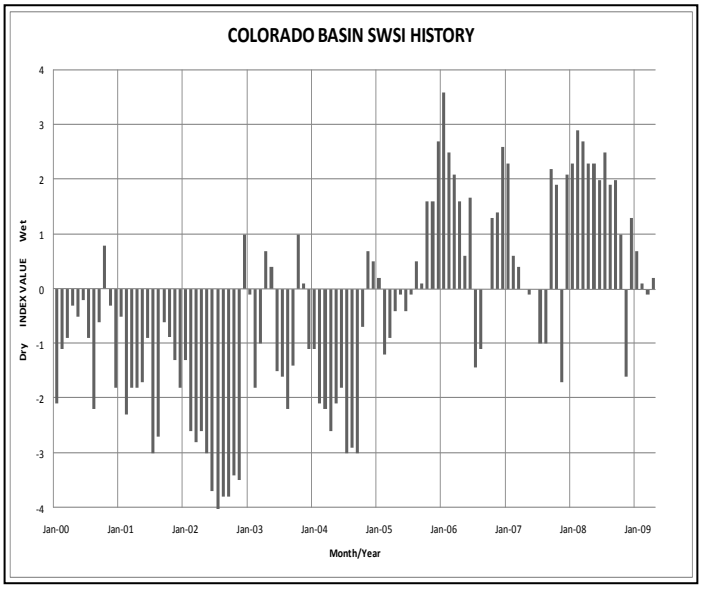
Considerably above average Colorado River flows have fallen sharply likely continuing the Shoshone power call initiated 8/31. Green Mountain Reservoir has lowered releases from reduced inflow and CBT depletions. Ruedi Reservoir releases have been cut significantly in the past two weeks, and Crystal River flows which fell sharply in mid-August, remain far below average. The resulting below average Roaring Fork flows will likely keeping the Colorado River flows below average throughout August, although increasing moisture in September could boost flows slightly.

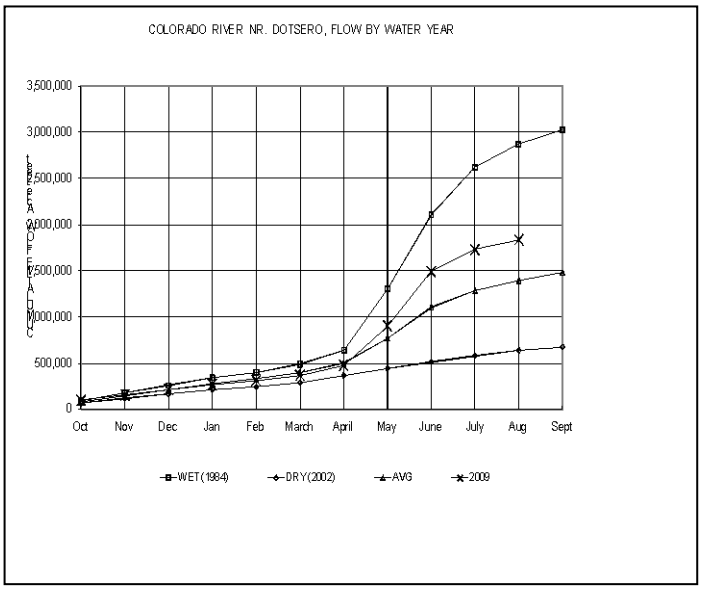
Administrative/Management Concerns

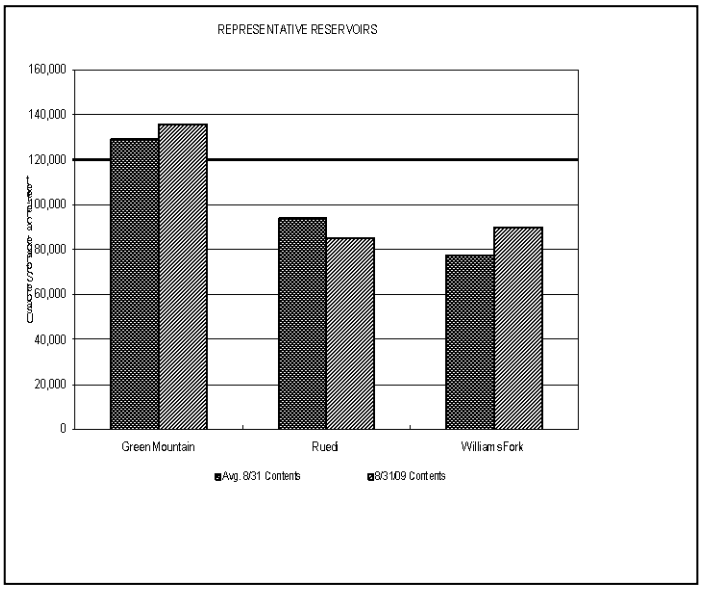
Dry conditions and reduced inflows reduced Green Mountain Reservoir releases in early August. Releases were then increased significantly through the end of August from Historic Users Pool (HUP) surplus. Shoshone performed a draining of the pool at the Hanging Lake trailhead on August 10th for a dam inspection. The resuming diversion to re-fill the pool was coordinated with the Colorado River Administrator to mitigate downstream administrative impacts. There were no calls from Grand Valley water users in August. The outlook for below average Colorado River flows will likely maintain the basin call out above Shoshone; however, less than maximum grand valley irrigation demand will keep a Grand Valley Irrigation call from occurring through September 30th.

Public Use Impacts

There were several complaints from anglers in early August regarding limited channel access from higher flows on the lower Fryingpan River. Above average Roaring Fork and Colorado River flows continue to draw mostly rafting enthusiasts.





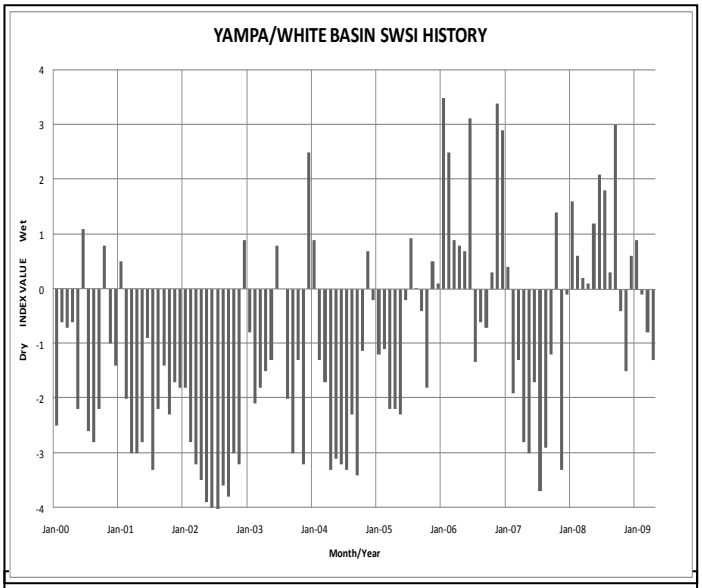


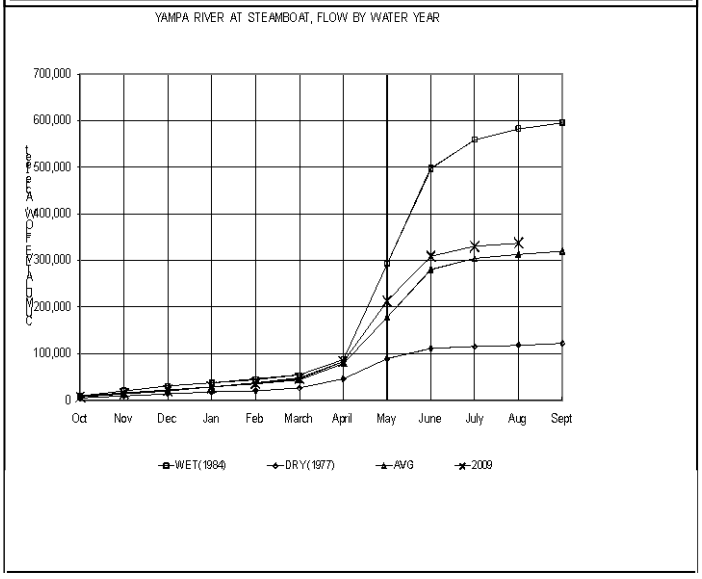
Basinwide Conditions Assessment

The SWSI value for the month was -2.4. Flow at the gaging station Yampa River at Steamboat was 123 cfs, as compared to the long-term average of 149 cfs.

August precipitation was well below 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 47% of average for the Yampa/White River basin and 59% of average for the North Platte River basin. Precipitation for the combined Yampa, White, and North Platte River basins was reported at approximately 51% of average for the month of August and 101% of average for the water year to-date.

Due to lower than average precipitation in July and August, most streamflows in Division 6 fell below the levels typically seen this time of year.





Outlook

Storage levels in Fish Creek Reservoir, Elkhead Creek Reservoir, and Yamcolo Reservoir continued to decline throughout August and were reported at approximately 85%, 86%, and 62% of capacity, respectively, at the end of the month. Water stored in Fish Creek Reservoir is used primarily for municipal purposes, Yamcolo Reservoir for irrigation purposes, and Elkhead Creek Reservoir for municipal, industrial, and recreational purposes, as well as fish recovery releases.

Administrative/Management Concerns

Several Division 6 streams remained under administration at the end of the month, including: Bear River, Talamantes Creek, Vermillion Creek, Little Bear Creek, Newcomb Creek, Spring Creek, and Soda Creek.

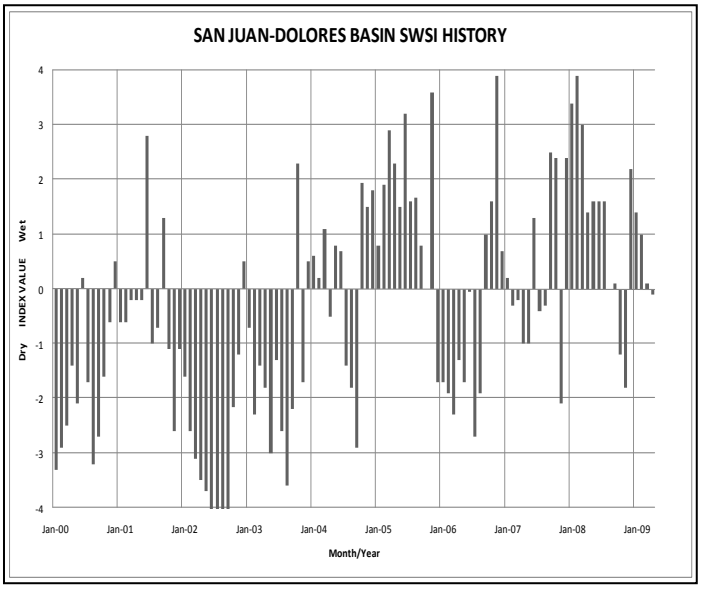
The second year of the fish recovery release from Elkhead Creek Reservoir was completed successfully in 2008. Data collected during the release are being reviewed by participating agencies and a transit loss study of Elkhead Creek is under way. In order to maintain adequate flows at the Yampa River near Maybell gage station, the U.S. Fish and Wildlife Service requested that the 2009 fish release from Elkhead Creek Reservoir commence on August 10 at a rate of 50 cfs. Fish releases were maintained at approximately 50 cfs throughout the remainder of the month. Flow at the Maybell station was reported at approximately 170 cfs at the end of August.

Public Use Impacts

High mountain reservoirs and State Parks in the area continue to attract many visitors and a busy Labor Day weekend is anticipated. Good fishing is reported at area lakes and streams. The Yampa River through Steamboat Springs remains a popular spot for local and visiting anglers and recreationists.

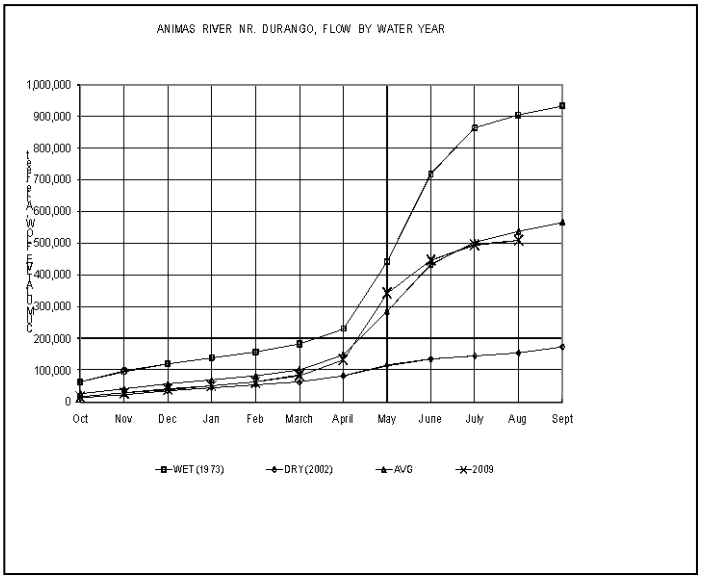
Basinwide Conditions Assessment

The SWSI value for the month was -2.9. Flows at the Animas River at Durango averaged 236 cfs (41% of average). The flow at the Dolores River at Dolores averaged 93 cfs (38% of average). The La Plata River at Hesperus averaged 6.7 cfs (29% of average). Precipitation in Durango was 0.71 inches for August, 27% of the 30-year average of 2.37 inches. Precipitation to date in Durango, for the water year, is 14.71 inches, below the average of 17.57 inches. The average high and low temperatures for the month of July in Durango were 83° 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 72,400 acre-feet compared to its average content of 70,059 acre-feet (103% of average). McPhee Reservoir was up to 291,692 acre-feet compared to its average content of 277,573 (105% of average), while Lemon Reservoir was up to 15,100 acre-feet as compared to its average content of 22,299 acre-feet (68% of average).



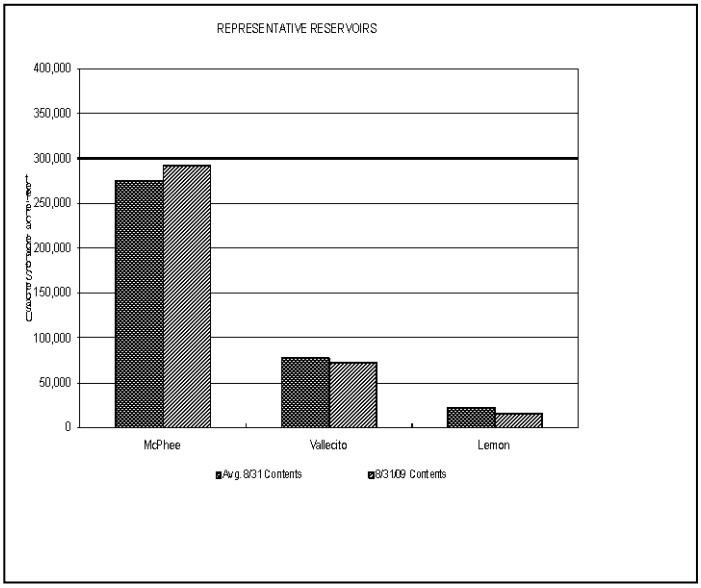
Outlook

August is typically the wettest month of the year, but that was not case this year. August 2009 is the 7th driest August out of 115 years of record. This followed a July which was just as poor. July 2009 was the 3rd driest July out of the same period of record. Reservoirs have been heavily relied upon for irrigation supply. All are rivers within the basin are flowing below average with the La Plata River approaching zero flow at the state line.



Administrative/Management Concerns

The flows on the La Plata River are so low that delivery to the Stateline gage, from Hesperus, is futile. Most of the La Plata River just below the Hesperus gage to the confluence of Long Hollow is dry. No pumping into Ridges Basin Reservoir occurred in August.



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