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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July 2005

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 SWSI values in this report were computed for each of the seven major basins for July 1, 2005, and reflect the conditions during the month of June.

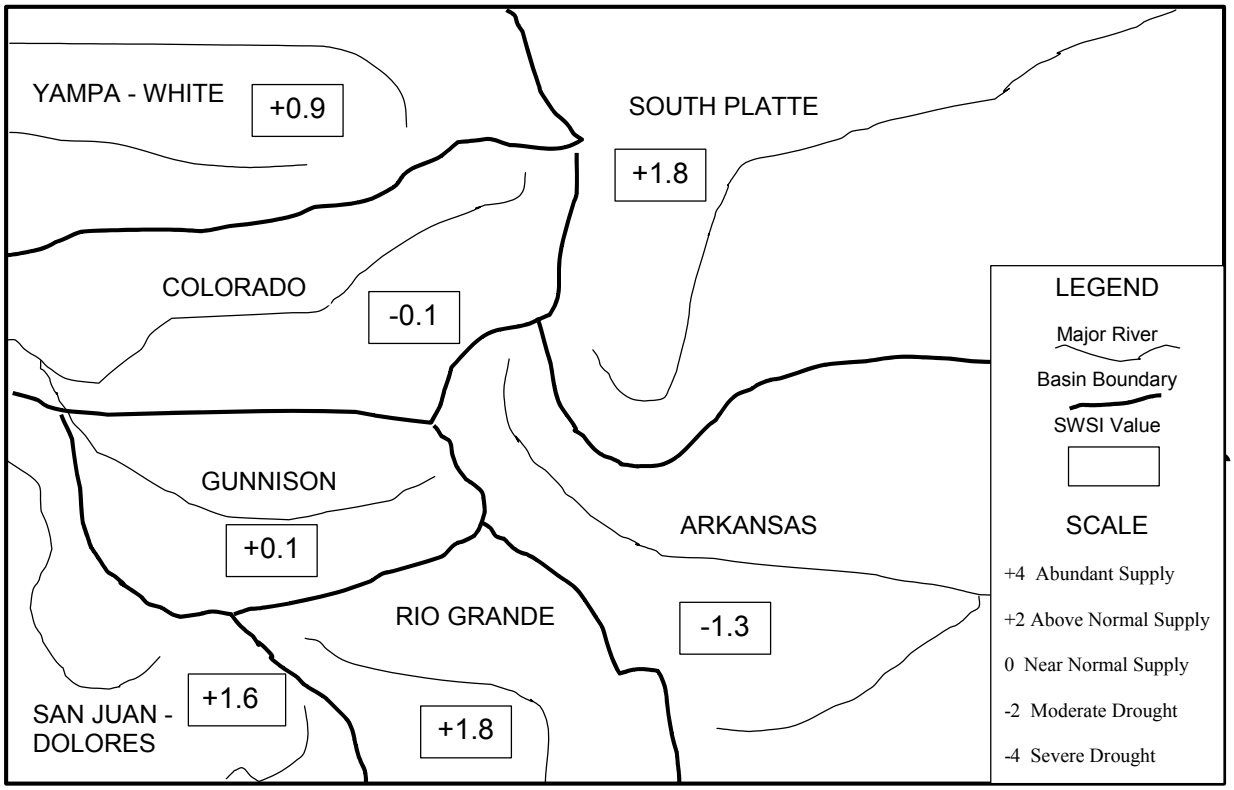
The highest SWSI values are in the South Platte, Rio Grande, and San Juan-Dolores Basins at 1.8, 1.8, and 1.6, respectively. The lowest value is in the Arkansas Basin at –1.3, which was a slight improvement from last month for that basin. All basins show good improvement in the water supply compared with this time last year. Reservoir contents for the reservoirs selected in computing SWSI values show that the Gunnison Basin is below average, the Arkansas Basin is about average, and the rest of the basins are above average for this time of year. The stream flow components are low for the Arkansas and Colorado Basins, about average for the Gunnison Basin, and above average for the other basins.

Basin	July 1, 2005 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+1.8	-0.1	+2.4
Arkansas	-1.3	+0.3	+0.9
Rio Grande	+1.8	-1.3	+3.2
Gunnison	+0.1	-0.7	+2.3
Colorado	-0.1	+0.3	+2.9
Yampa/White	+0.9	+1.1	+4.2
San Juan/Dolores	+1.6	-1.6	+3.0

Scale

-4	-3	-2	-1	0	1	2	3	4
Severe Drought		Moderate Drought		Near Normal Supply		Above Normal Supply		Abundant Supply

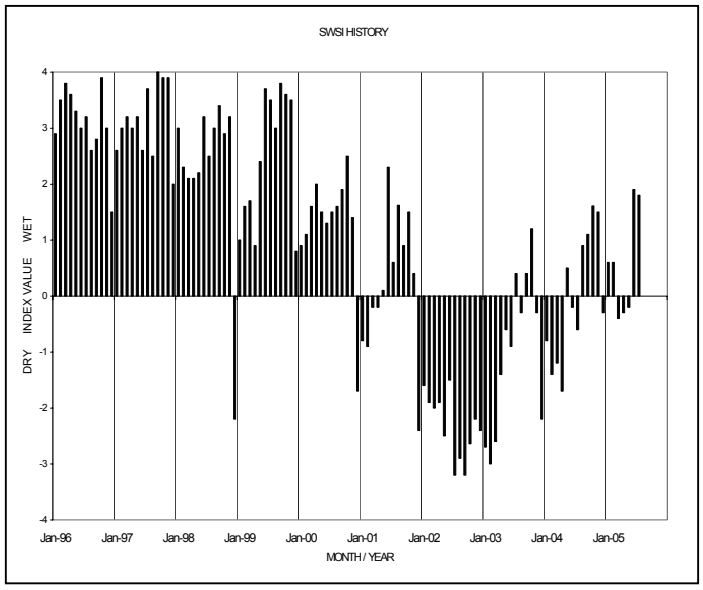
SURFACE WATER SUPPLY INDEX FOR COLORADO



July 1, 2005

Basinwide Conditions Assessment

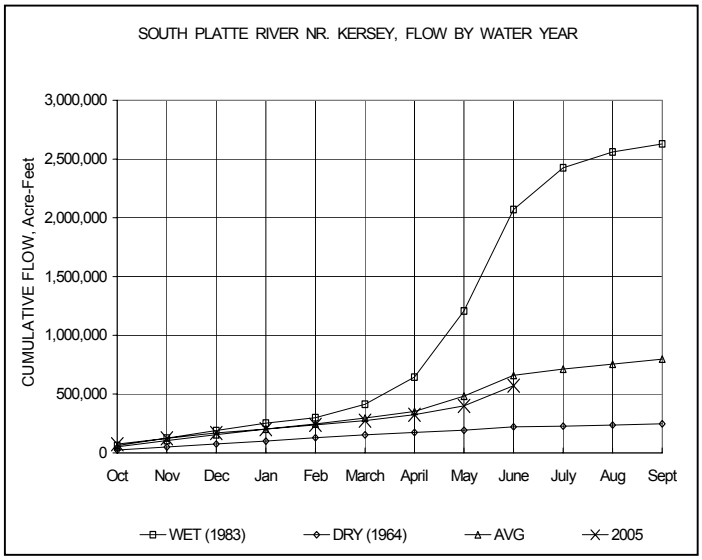
The SWSI value of +1.8 indicates that for June the basin water supplies were above normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 111% of normal as of the end of June. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 97% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 88% of capacity. Flow at the gaging station South Platte River near Kersey was 2902 cfs, as compared to the long-term average of 2355 cfs. Flow at the Colorado/Nebraska state line averaged 1137 cfs.

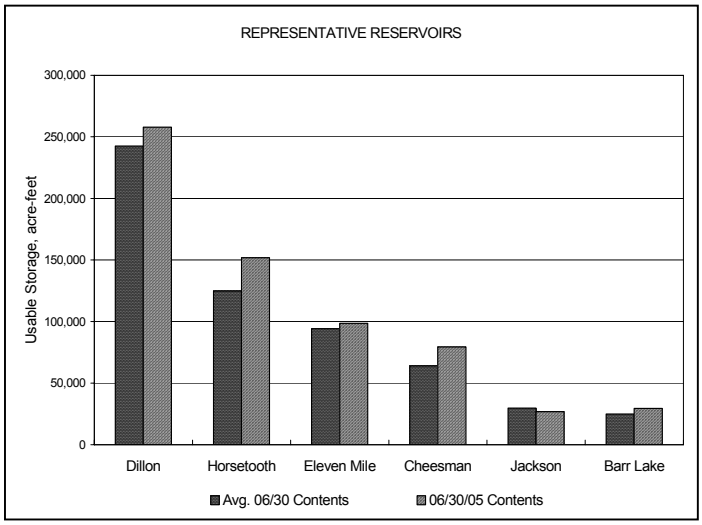


Outlook

Although snowpack was average or less by June, we had an open river with no call below Denver for most of the month with the very wet conditions on the plains in May. This is the first time that this has occurred in several years during June. Irrigators on the plains were able to divert enough water for direct use and to maintain their reservoirs full. The free river also allowed the opportunity for extensive recharge within the basin. This recharge will provide significant augmentation water to replace well depletions from pumping irrigation wells.

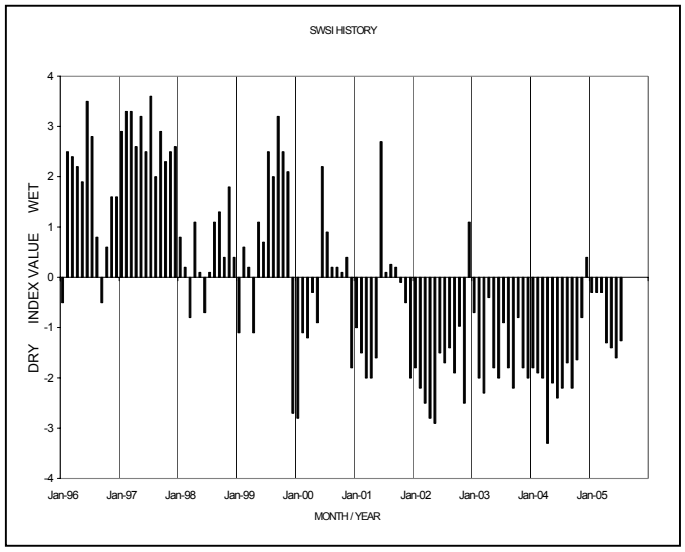
As expected, irrigation calls on the river began toward the end of June. Except in the very highest flow years, there is always a direct call that occurs by about the first of July. We expect this senior call to remain until irrigation starts to wind down this fall. With the good start to the year, there should be an adequate supply for irrigators. Likewise, most municipal water suppliers should also have an adequate water supply for this summer.





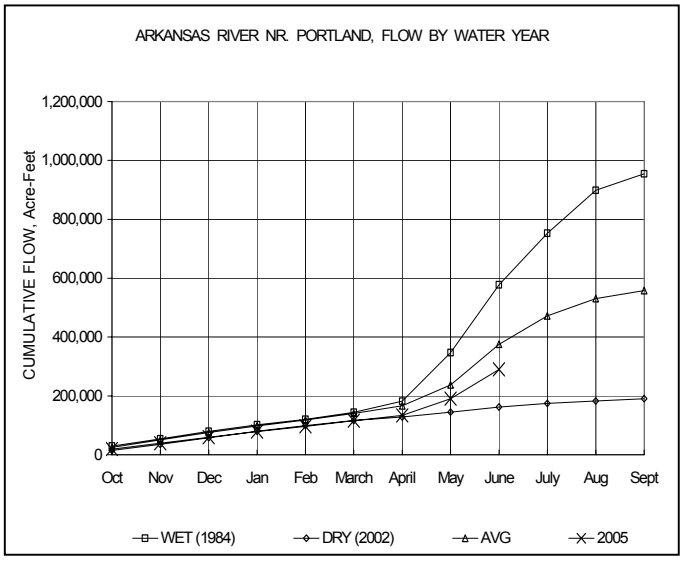
Basinwide Conditions Assessment

The SWSI value of –1.3 indicates that for June the basin water supplies were below normal. Flow at the gaging station Arkansas River near Portland was 1669 cfs, as compared to the long-term average of 2319 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 78% of normal as of the end of June.



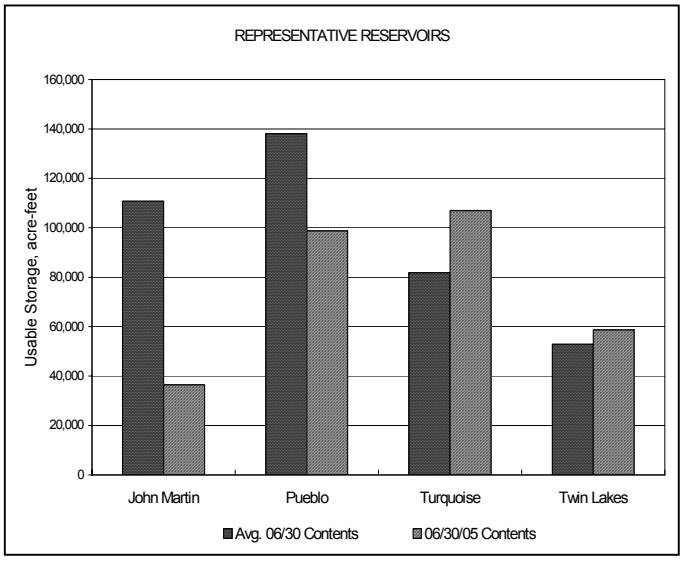
Outlook

Stream flows in June rallied for a significant secondary peak the week of June 18th that were less than the peak flow at most gaging locations experienced in May, but were quite significant in terms of a beneficial irrigation supply throughout June. The Arkansas River call began the month set at the Great Plains Storage Right delivered to John Martin Reservoir on behalf of Amity Canal. The river call at the end of June was the Fort Lyon #2 call (3/1/1887). Higher temperatures caused the runoff to rebound during the month following a cooler trend in late May.



Administrative/Management Concerns

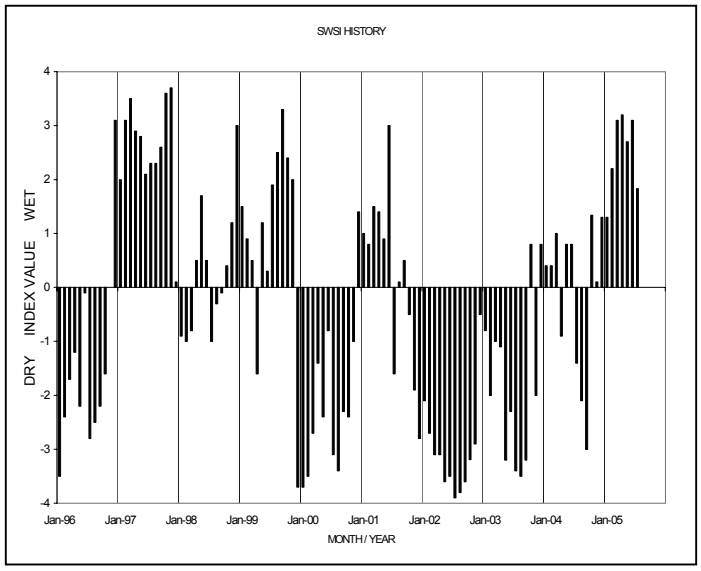
The Southeastern Colorado Water Conservancy District allocated approximately 30,000 acre-feet of Fryingpan Arkansas Project water and exceeded their expectations for import deliveries due to good runoff conditions on the western slope. A second allocation of Project water and return flows may occur signaling good news for mainstem ditches and well augmenters.



Basinwide Conditions Assessment

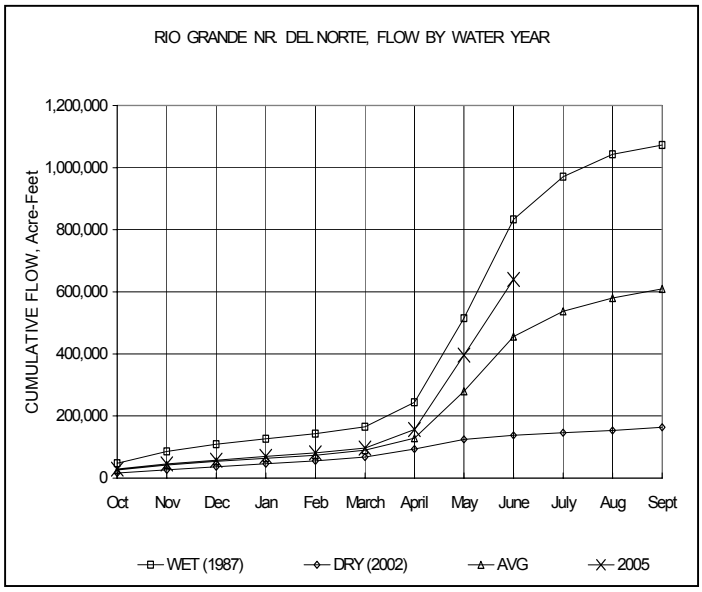
The SWSI value of +1.8 indicates that for June the basin water supplies were above normal. Flow at the gaging station Rio Grande near Del Norte averaged 4089 cfs (129% of normal). The Conejos River near Mogote had a mean flow of 1466 cfs (113% of normal). Stream flow in most areas of the upper Rio Grande Basin was above normal during June, the third consecutive month of such conditions. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 106% of normal as of the end of June.

Precipitation in Alamosa was only 0.36 inches, 0.32 inches below normal. The first four months of the year provided outstanding precipitation for the basin. However, May and June have had poor rainfall and the non-irrigated areas are really showing the effects of this.



Outlook

By the end of the month, the calling priorities on area creeks and rivers were surprisingly senior for an above-average water year. Warm temperatures resulted in a quicker-than-normal melt-out of the snowpack and above normal runoff during April, May and June in most of the Division 3 streams. However, by the end of June, many streams had dropped to average or below average flows. For those drainages with storage reservoirs, releases began during the latter part of the month. Without substantial rainfall, stream flow in the upper Rio Grande basin will fall below normal levels after the reservoir releases are completed in July.

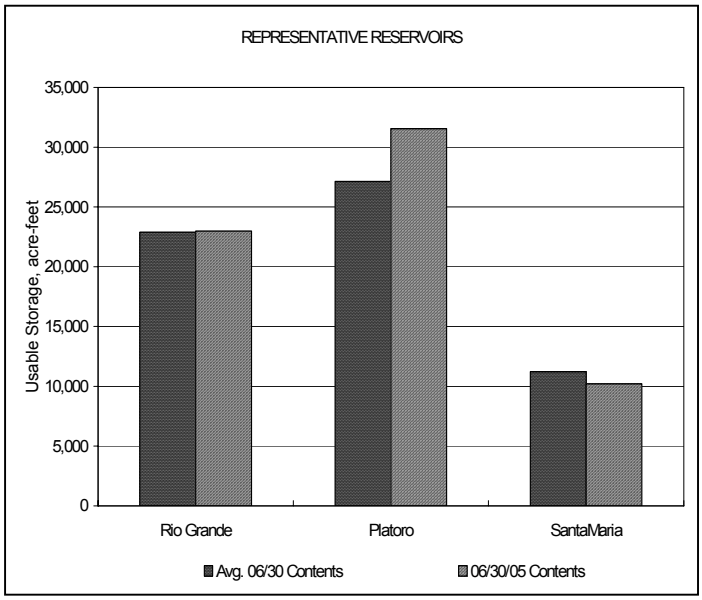


Administrative/Management Concerns

Administrators have placed curtailments on indexed stream flows in order to meet water delivery requirements to the state line pursuant to the Rio Grande Compact. The current delivery targets are set at 32% for the Rio Grande and 43% for the Conejos River system. These percentages of available native flow are routed downstream past the ditches to the state line.

Public Use Impacts

The warm, dry weather has benefited those farmers and ranchers with native grass and alfalfa crops. Most reservoirs reached peak storage levels near the end of May or early June and have already begun to decline as releases are made for irrigation needs. As the summer progresses, recreational opportunities may be hampered by low water levels in both reservoirs and streams in the basin.



Basinwide Conditions Assessment

The SWSI value of +0.1 indicates that for June the basin water supplies were normal. Flow at the gaging station Uncompahgre River near Ridgway was 619 cfs, as compared to the long-term average of 557 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 101% of normal as of the end of June. The flows in the Gunnison Basin appear to have peaked for the summer in late May. It appeared that there would be another, perhaps higher peak in June, but there just wasn't enough snow left.

Outlook

After the April 1 forecast, it appeared that all of the major reservoirs in the Gunnison Basin would come close to filling this year. But as the summer has progressed, the forecasted inflows to the reservoirs have steadily dropped. Blue Mesa reservoir, which was forecasted to fill within 3 feet of the top, is now 20 feet from spilling. Taylor Park reservoir is still 6 feet from spilling, and Ridgway is 5 feet from spilling. None of these reservoirs are expected to gain much more storage this season.

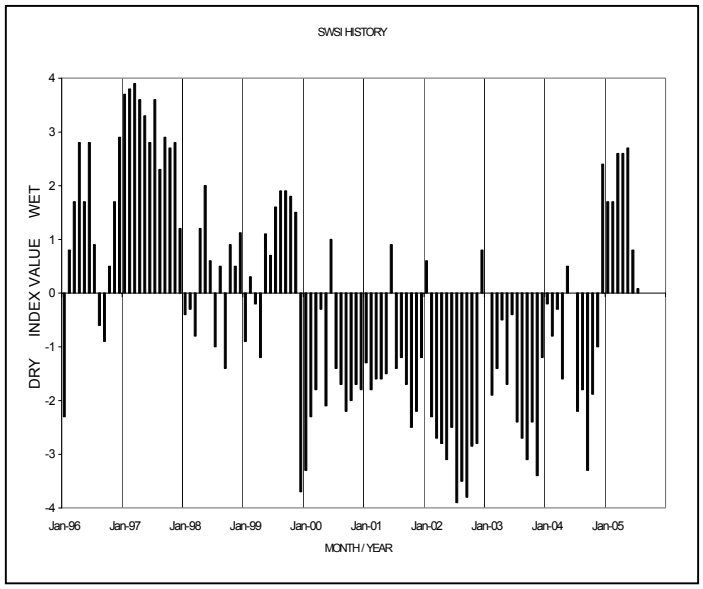
Administrative/Management Concerns

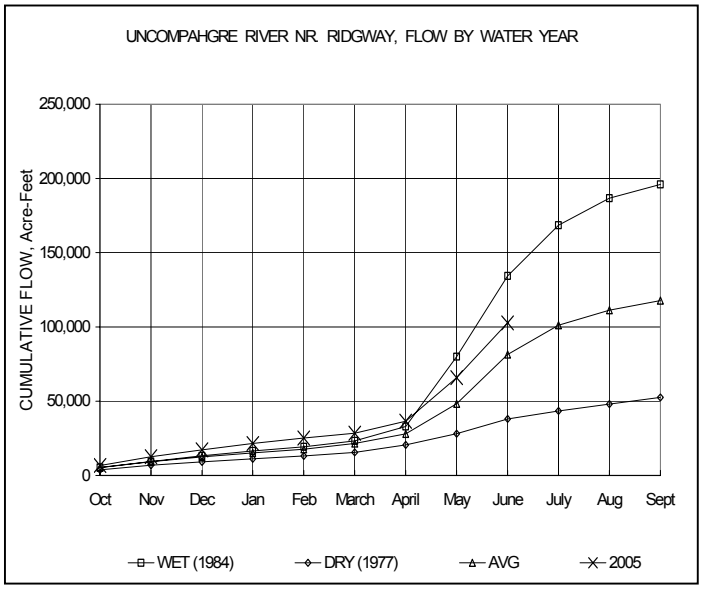
The USBR usually releases enough water from Crystal Reservoir to make sure there is 300 cfs in the Gunnison River below the Redlands Canal Diversion for endangered fish. After releasing around 700 cfs from Crystal Reservoir for most of June, the USBR has cut the flows to 550 cfs. It will likely stay at that level until later in the summer when the water is needed below Redlands Canal.

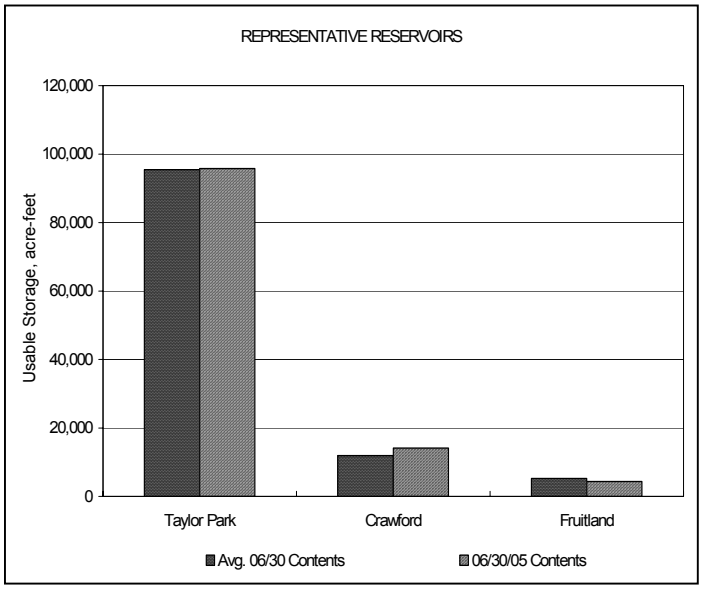
The two tightest systems in this area, Surface Creek and Kannah Creek, have finally returned to being administered after several months of free river. Both are usually tightly administered from the first part of June through the entire summer, but this year administration came a full month later. The irrigators have been extremely pleased, especially after the last few years of drought.

Public Use Impacts

Although river flows are dropping sharply, especially with the HOT weather, irrigators are still getting a full supply for their crops. Many in the Upper Unison Basin are shutting off to hay, their season being complete. Of special note, this should be a good year for the famous 'Olathe Sweet' Sweet Corn that many people across the state enjoy. Also, the fruit crops in the Paonia and Palisade areas should be good this year.





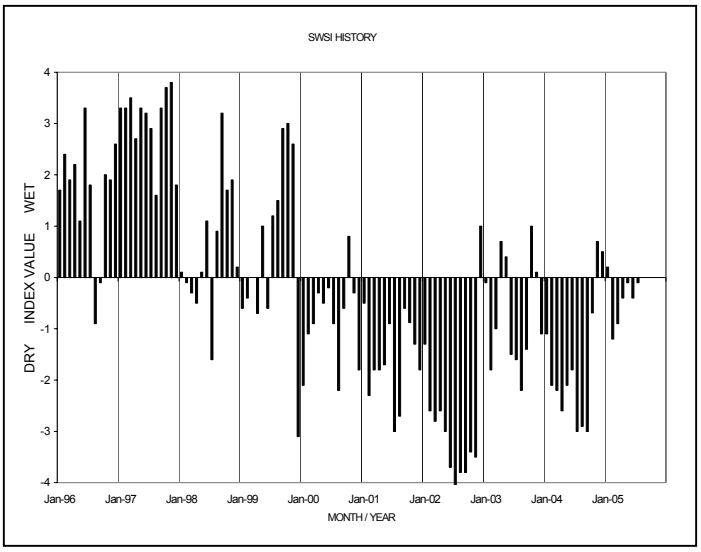


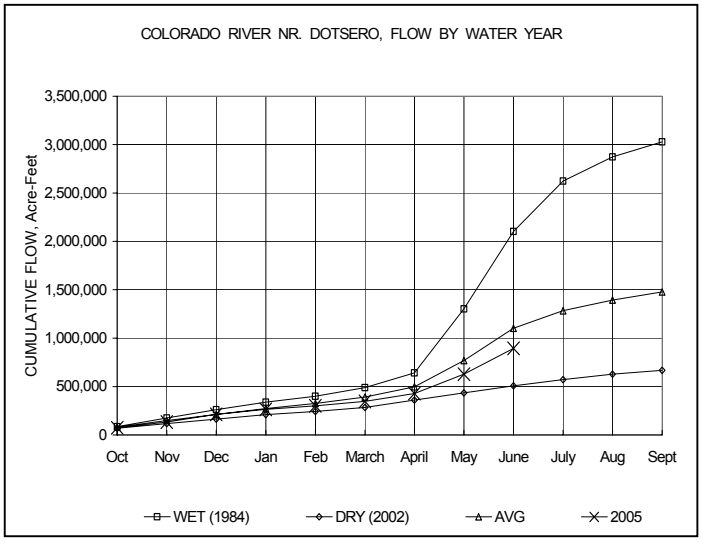
Basinwide Conditions Assessment

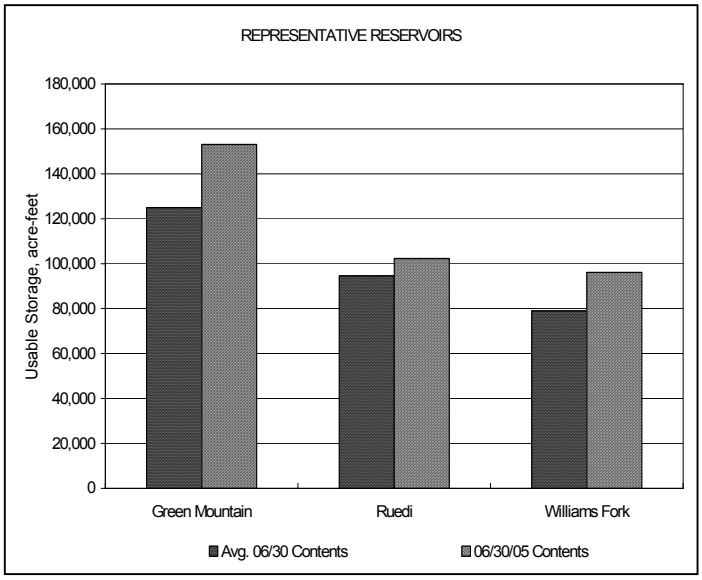
The SWSI value of –0.1 indicates that for June the basin water supplies were normal. Flow at the gaging station Colorado River near Dotsero was 4,496 cfs, as compared to the long-term average of 5,607 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 118% of normal as of the end of June.

Runoff in the latter part of May gave concern to many water users that runoff had peaked (12,100 cfs on May 24 on the Colorado River below Glenwood Springs) and was over. Luckily, temperatures increased in late June and allowed another peak, albeit lesser than May's (10,700 cfs on June 23) which has since prolonged river calls on the major rivers and some tributaries.

Green Mountain Reservoir achieved its 1935 paper fill on June 5 and paper filled the 1955 appropriation on June 27. Since June 28 there has been no written mainstem or side tributary calls on the Blue River. This is the first time free river conditions existed on the Blue since 1997. Many major reservoirs (Dillon, Green Mountain, Williams Fork, Ruedi and Vega) filled and spilled this year. Wolford and Granby Reservoirs were the exceptions.







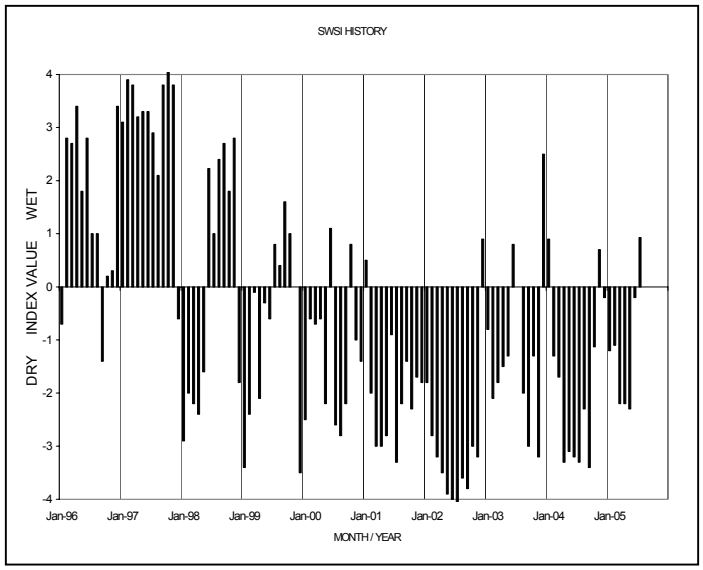
Basinwide Conditions Assessment

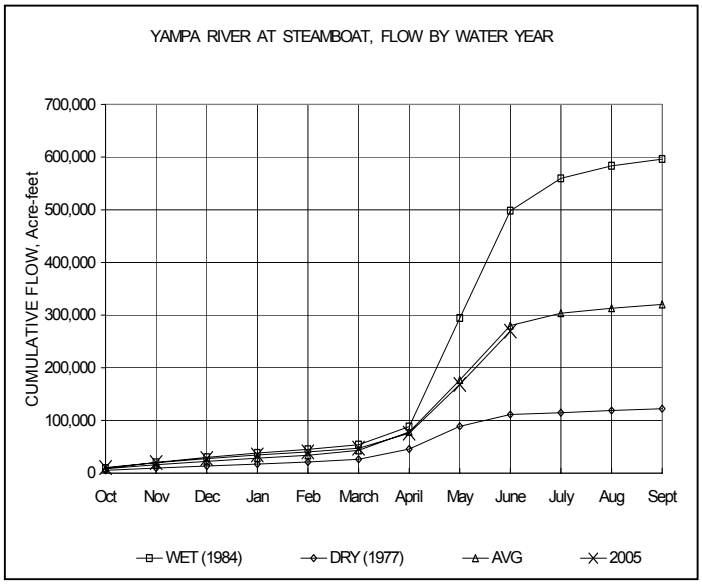
The SWSI value of + 0.9 indicates that for June the basin water supplies were slightly above normal. Flow at the gaging station Yampa River at Steamboat was 1,705 cfs, as compared to the long-term average of 1,738 cfs.

June was an exceptionally wet month for the basins. Precipitation totaled 247% of average, as recorded at the SNOTEL sites operated by the NRCS. This moisture followed a wet second half of May, and resulted in above average stream flows in the basin for most of June. There is very little snowpack left at the higher elevations, but stream flows remain above average for this time of year. Most reservoirs filled during the runoff period and are near maximum storage capacity.

Public Use Impacts

Flows in the rivers and streams are steadily receding, but are still above normal levels. Caution should be exercised when recreating on or near the watercourses.





Basinwide Conditions Assessment

The SWSI value of +1.6 indicates that for June the basin water supplies were above normal. Flow at the gaging station Animas River near Durango was 3,447 cfs, as compared to the long-term average of 2,479 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 119% of normal as of the end of June.

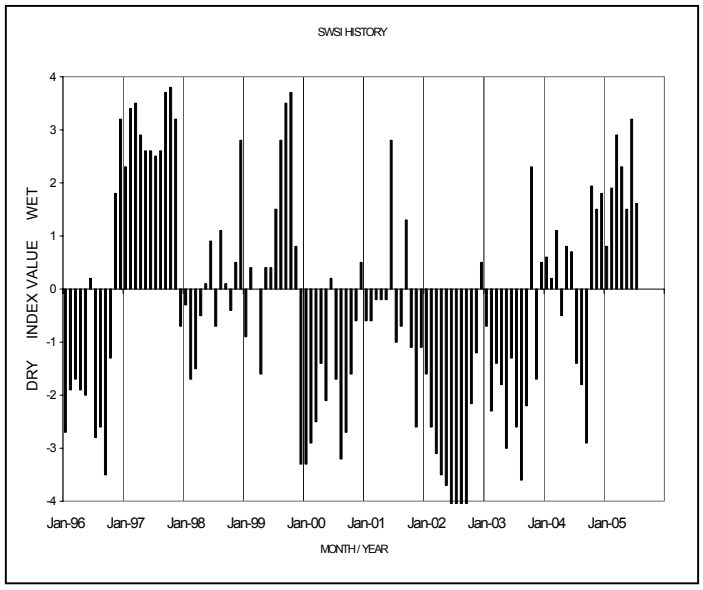
Outlook

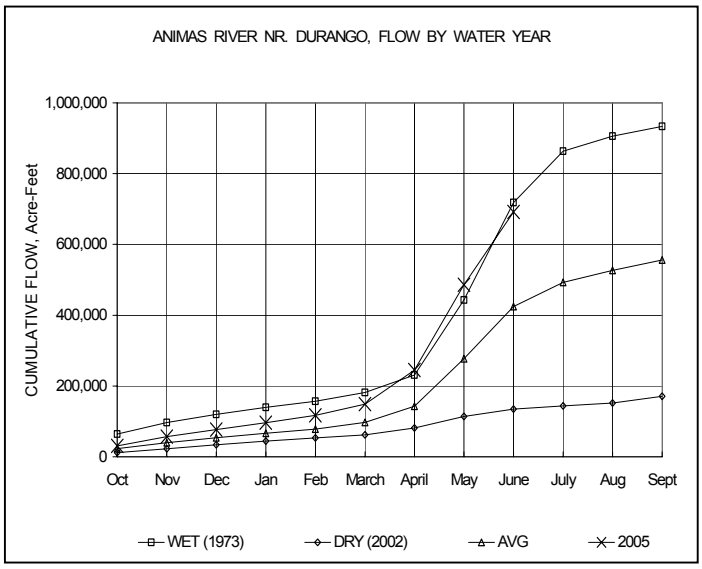
By July all of the reservoirs were topped out, filling back in the vacancies created earlier in anticipation of the runoff. The cold weather which came through the area late in May and early June continued with lower temperatures and overcast skies until June 12th. High temperatures were 3°F below normal but the lows were 3°F above normal for the month. A mild freeze was experienced on June 4th in many areas. Reservoirs were mostly full and waiting for use in the late summer.

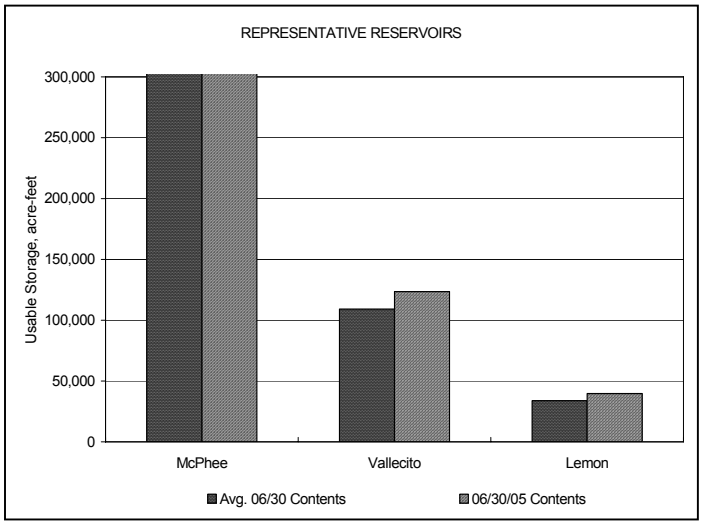
The Dolores River ran nearly average with a daily high for the month of 2250 cfs on June 3rd. The Animas and La Plata Rivers ran well above normal without another peak flow as high as the May maximum.

Very little precipitation was seen in June until the last week. Durango recorded .31 inch, which is 49% of normal for June. As a result, most areas were drying out rapidly, leaving soil moisture levels very dry. Springs in the mountains continued to flow well. Elbert Creek did not experience an irrigation call.

It is possible that with normal summer precipitation, the water supply will be excellent at the end of the summer. The monsoon and thunderstorm season has not yet begun in the area, however, and a long dry spell could change that outlook significantly.







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