
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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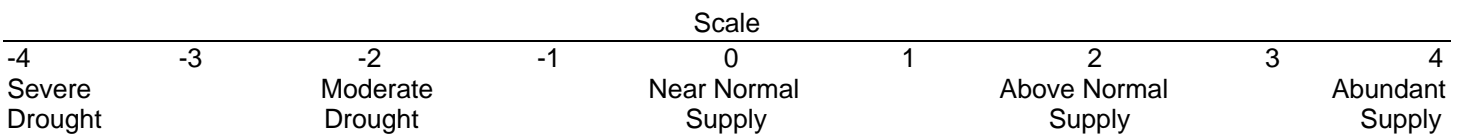
July 2007

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.

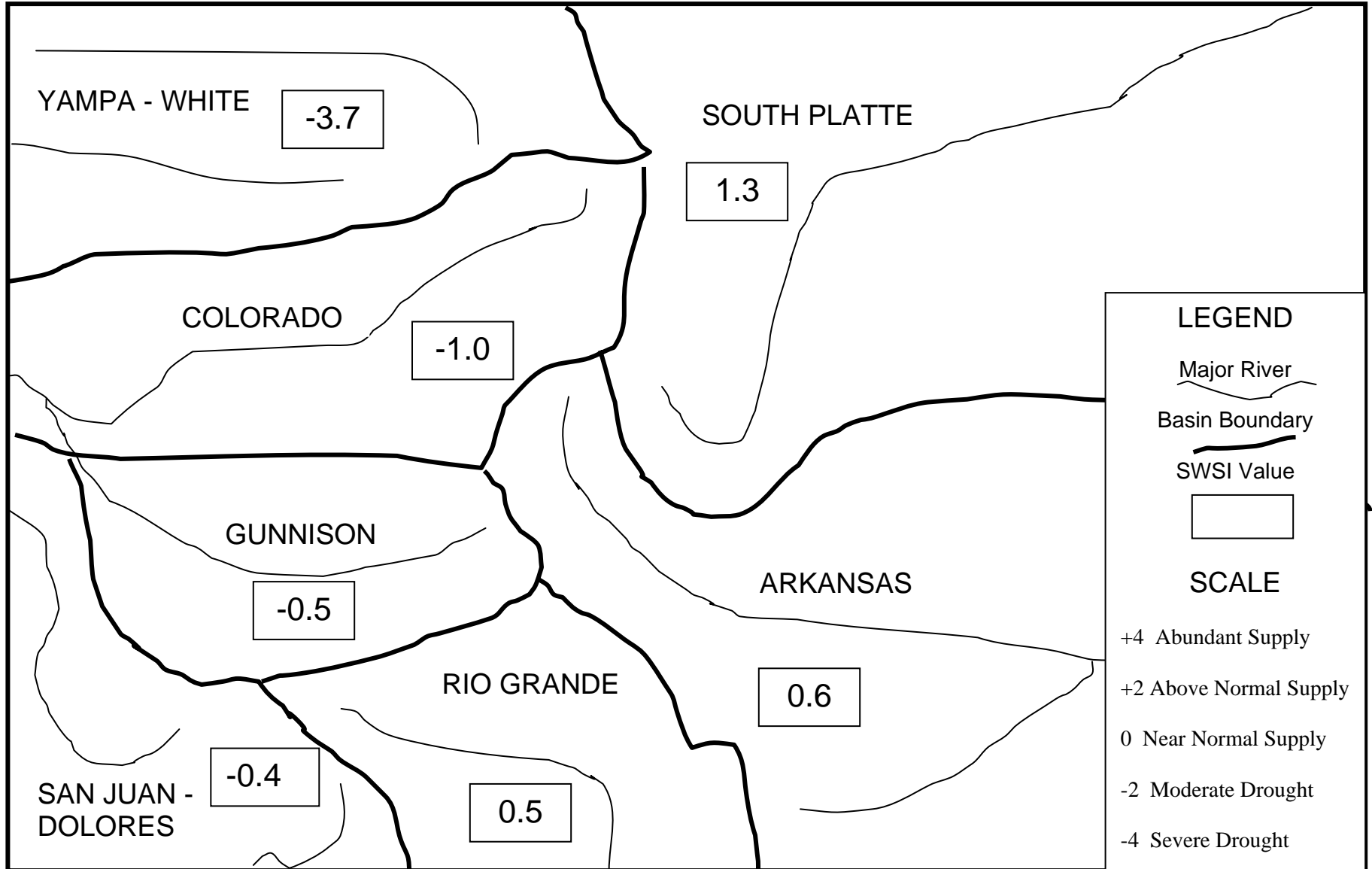
The statewide SWSI values for July range from a high value of 1.3 in the South Platte Basin to a low value of -3.7 in the Yampa/White Basin. All of the basins (South Platte, Arkansas, Rio Grande, Gunnison, Colorado, Yampa/White, and San Juan/Dolores) experienced a loss from the previous month's values.

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

<u>Basin</u>	<u>July 1, 2007 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	+1.3	- 1.1	+1.8
Arkansas	+0.6	- 1.7	+2.2
Rio Grande	+0.5	- 1.0	+1.3
Gunnison	- 0.5	- 1.2	- 0.5
Colorado	- 1.0	- 1.0	+0.4
Yampa/White	- 3.7	- 2.0	- 2.4
San Juan/Dolores	- 0.4	- 1.7	+2.3



SURFACE WATER SUPPLY INDEX FOR COLORADO



July 1, 2007

Basinwide Conditions Assessment

The SWSI value for the month was 1.3. Reservoir storage in Dillon, Horsetooth, Eleven Mile, Cheesman, Jackson, and Barr Lake, the major component in this basin in computing the SWSI value, was 105% of normal as of the end of June. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 92% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 102% of capacity. Flow at the gaging station South Platte River near Kersey was 1638 cfs, as compared to the long-term average of 2321 cfs. Flow at the Colorado/Nebraska state line averaged 572 cfs.

Outlook

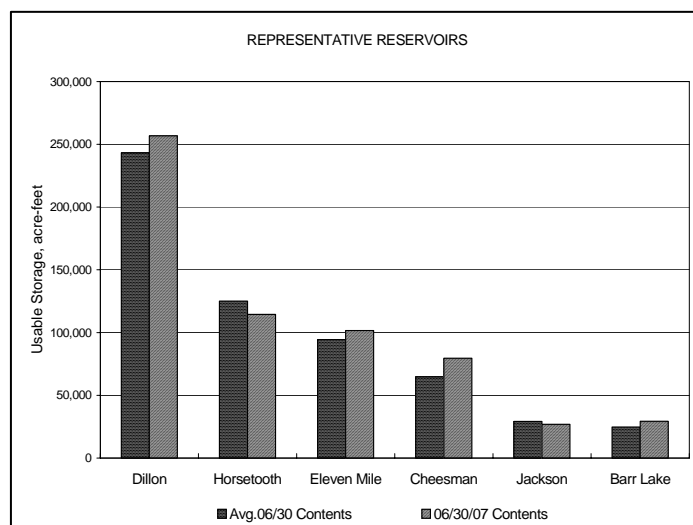
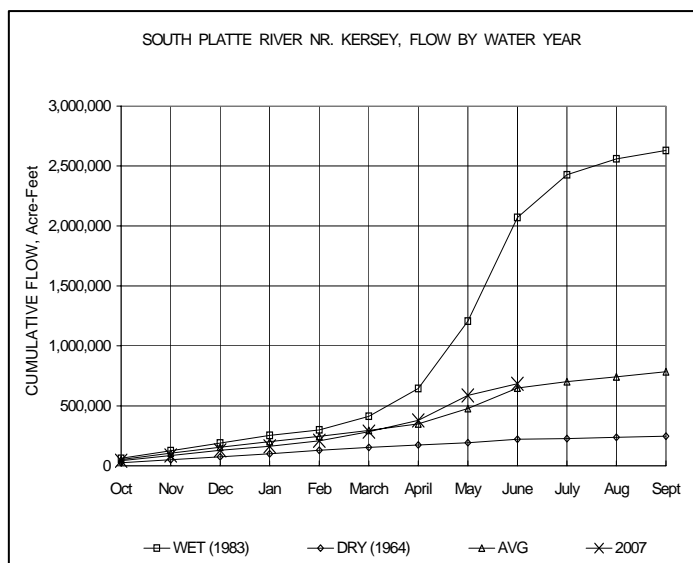
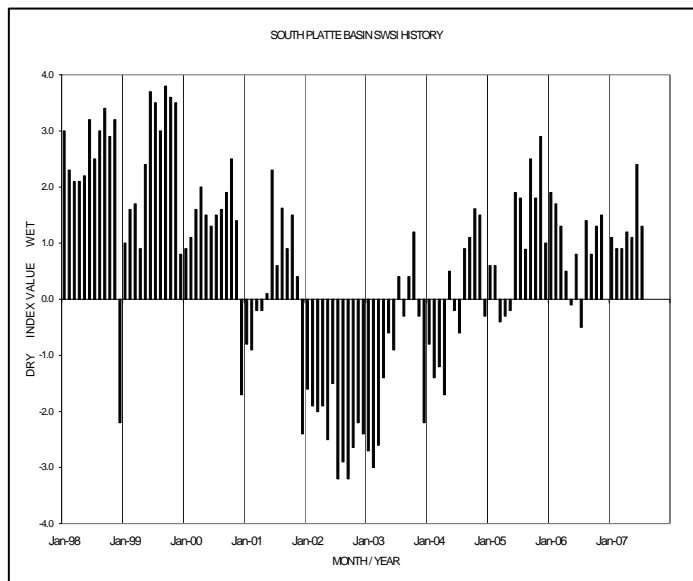
The flow in the South Platte dropped dramatically in June as snow melt runoff ended, weather conditions on the plains became drier, irrigation demand increased. With these changes, demand finally outstripped supply and there was a direct flow call for irrigation on the river for the first time on June 12, 2007 after seven weeks of free river. Seven weeks is the longest period of free river that has existed on the South Platte since 2001.

Administrative/Management Concerns

By the end of June, some irrigation users along the mainstem and tributaries had also begun using their reservoir supplies though reservoirs remained near full. Municipal users also generally still had full reservoir supplies. With these conditions, it is fairly certain that those who depend on senior surface supplies and reservoirs will have an adequate water supply this year. The one exception is the Poudre basin which did not have as good a snow pack and supplies continue to be less than average.

Public Use Impacts

Of note, the governor initiated a Task Force to look at possible solutions for well users in the South Platte basin who own junior water rights without adversely impacting senior water right holders. The first task force meeting was held June 29th in Greeley. To date, Division 1 has issued orders to cease use concerning approximately 2400 wells in the South Platte basin. In addition, Division 1 is still investigating approximately 1600 wells generally located further from the river. In contrast, over 5000 wells are operating in accordance with decreed augmentation plans or Substitute Water Supply Plans. Additional information concerning subsequent meetings of the Task Force may be found at <http://www.ag.state.co.us/SouthPlatteTF.html>.



Basinwide Conditions Assessment

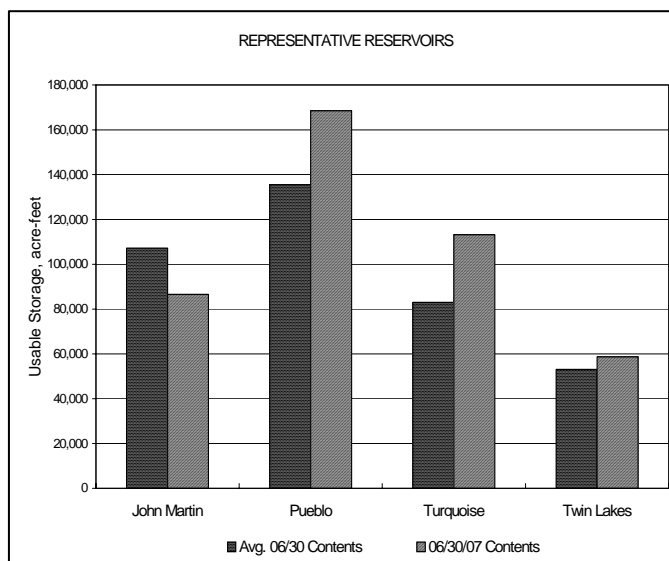
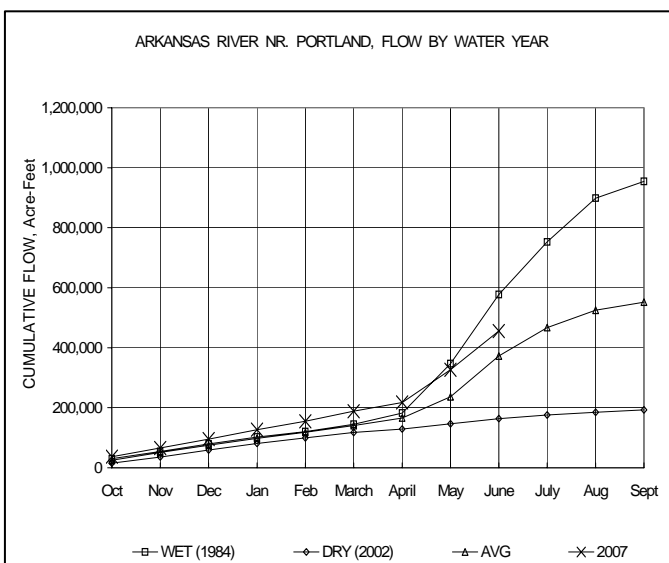
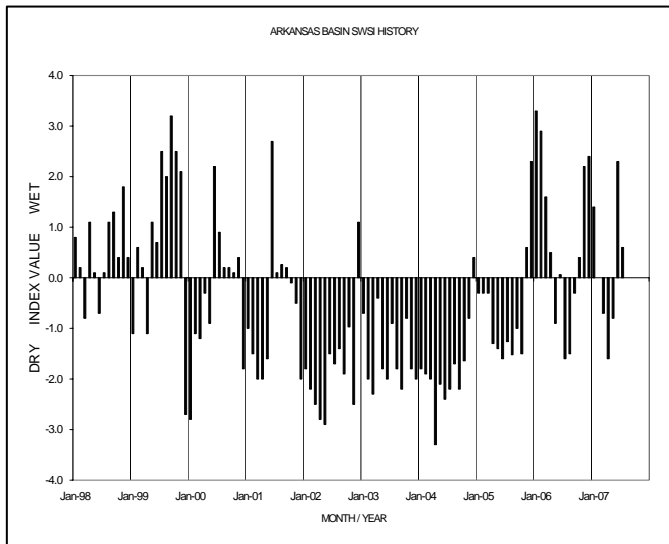
The SWSI value for the month was 0.6. Flow at the gaging station Arkansas River near Portland was 2169 cfs, as compared to the long-term average of 2286 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 113% of normal as of the end of June.

Outlook

Stream flows in June continued strong with a peak the week of June 17th at most mainstem gages, although some gages actually had a higher peak in May. The Arkansas River call began the month set at the Twin Lakes Reservoir 12/15/1896 priority. The river call at the end of June was a split call between Holbrook #1 (9/25/1889) and Amity #2 call (4/1/1893).

Administrative/Management Concerns

The Southeastern Colorado Water Conservancy District allocated approximately 37,500 acre-feet of Fryingpan Arkansas Project water, which is almost 10,000 acre-feet less than the amount allocated in 2006 due to poorer snowpack conditions in the Fryingpan drainage.



Basinwide Conditions Assessment

The SWSI value for the month was 0.5. Flow at the gaging station Rio Grande near Del Norte averaged 3327 cfs (107% of normal). The Conejos River near Mogote had a mean flow of 835 cfs (66% of normal, due partly to direct flow storage in Platoro Reservoir). Stream flow in most areas of the upper Rio Grande Basin was near normal during June. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 100% of normal as of the end of June.

June precipitation in Alamosa was only 0.25 inches, 0.34 inches below normal. While Alamosa received significantly less precipitation than normal, precipitation in other areas of the Rio Grande basin, including the mountains, received close to a normal amount. The mean temperature at Alamosa for the month of June was 60.7 degrees, which is 1.3 degrees above normal.

Outlook

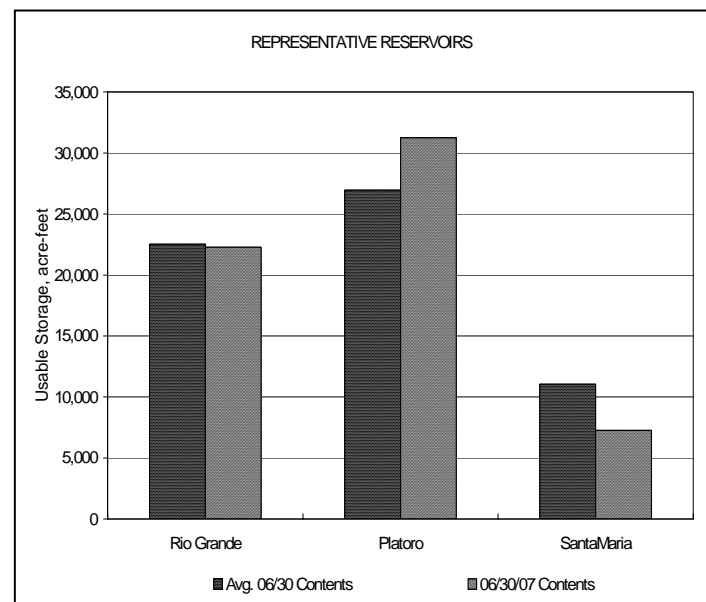
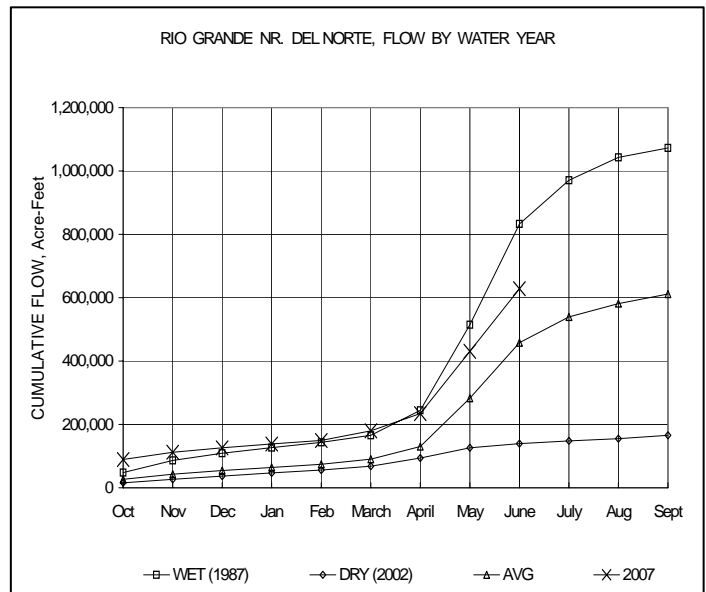
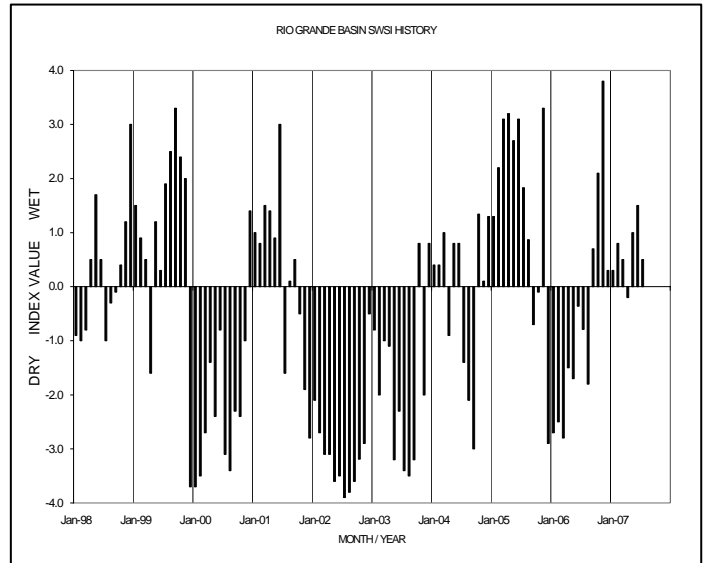
Both the Rio Grande and Conejos Rivers are producing much more water than was expected earlier in the year. The current forecast for the Rio Grande is an April-September total flow of 590,000 acre-feet, which is 210,000 acre-feet higher than the May 1st NRCS forecast for the same time period. Similarly, the Conejos system forecast has increased by over 43,000 acre-feet since May 1. This incredibly large change in forecast numbers has caused quite a stir in the water user community since the curtailments on both rivers have been increased substantially to account for the increased flows. By the end of June, many streams had dropped to slightly 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 be significantly 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 25% for the Rio Grande and 16% 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, relatively 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 for the month was -0.5. Flow at the gaging station Uncompahgre River near Ridgway was 628 cfs, as compared to the long-term average of 555 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 106% of normal as of the end of June.

Outlook

June is typically the driest month of the year in western Colorado and June, 2007 was no exception. Montrose had only 0.28 inches of precipitation all month and that occurred on the 11th and 12th. Stagnant high pressure set in mid-month, forcing temperatures in the upper Gunnison basin into the 90's and even 100 in Grand Junction. The extreme heat dried all non-irrigated areas and put wildfire watches into effect.

Natural streamflow diminished quickly throughout the basin during June. Where available, reservoir releases for irrigation needs have begun in earnest. The demand is highest on irrigated ground below the Grand Mesa but other parts of the Division such as the Paradox valley, the Gurley system, Fruitland Reservoir, and Fruitgrowers Reservoir began early releases.

The sudden drop-off in streamflow will create "on-call" situations on many tributaries of the Gunnison River. Particularly tight will be the North Fork of the Gunnison and its tributary, the East River,

At the last report, Blue Mesa Reservoir was not expected to fill and probably reached a maximum level on July 2 at 787,000 acre-feet or about 95% of capacity. The USBR increased releases from the Aspinall Unit on July 3 to meet demand from the Gunnison Tunnel. Flow into the Black Canyon rose to about 600 cfs that day.

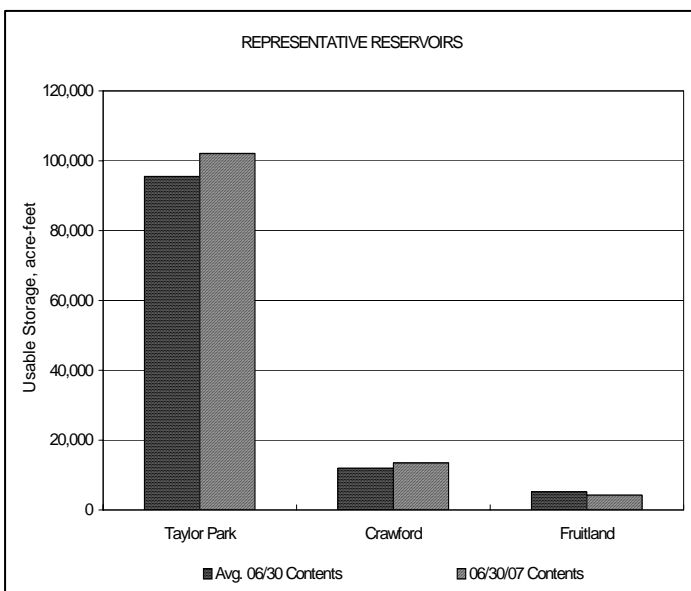
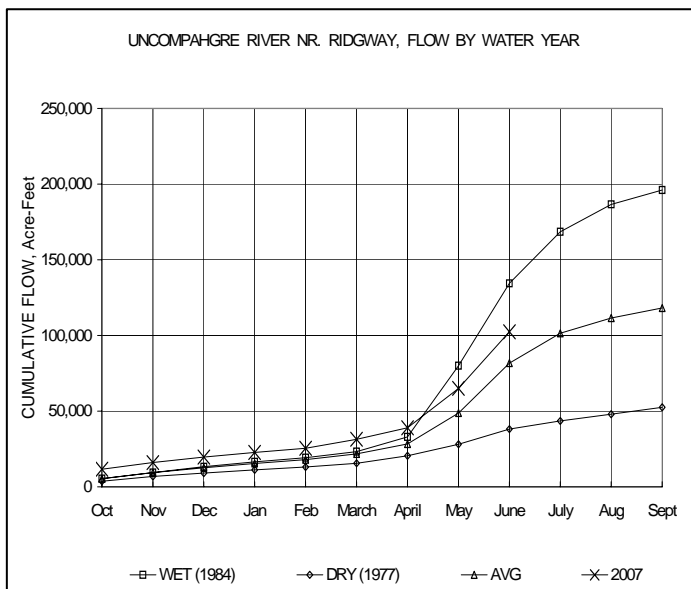
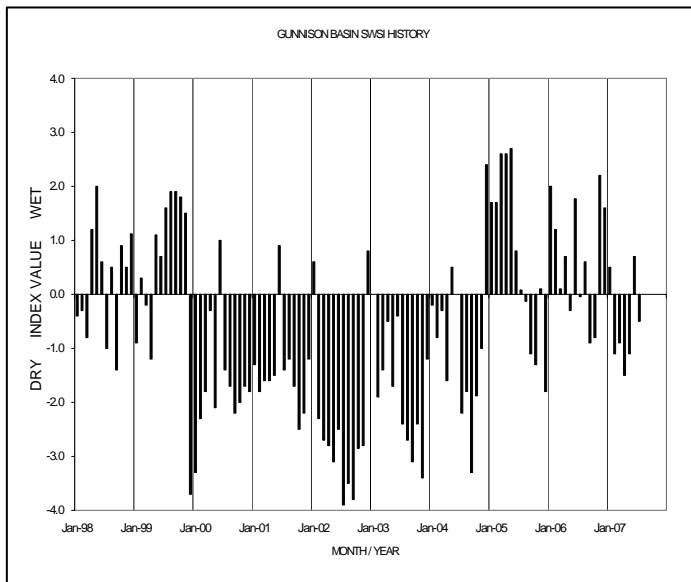
Taylor Park, Paonia, Crawford, and Ridgway Reservoirs are still near spill. Releases from those reservoirs for irrigation requirements should begin in July. The reservoirs on the Grand Mesa are already supplementing natural stream flow in the Kannah, Surface, and Ward Creek drainages.

Administrative/Management Concerns

Water Court Case No. 01CW05 is the filing by the USA to quantify the water rights of the Black Canyon. This 2001 Court filing has over 380 opposing parties, although many have already stipulated out. Negotiations between the parties heightened during the spring and a lot of progress has been made. However, Water Judge Steven Patrick set the matter for an eight-week trial, June and July of 2009, in an effort to move this landmark case towards completion.

Public Use Impacts

The initial abundant reservoir supply has made conditions look better than the poor to fair spring snowpack and runoff forecast. Streamflow will likely drop drastically in July and August, but will hopefully be boosted by summer rains.



Basinwide Conditions Assessment

The SWSI value for the month was -1.0. Flow at the gaging station Colorado River near Dotsero was 4368 cfs, as compared to the long-term average of 5542 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 117% of normal as of the end of June.

Outlook

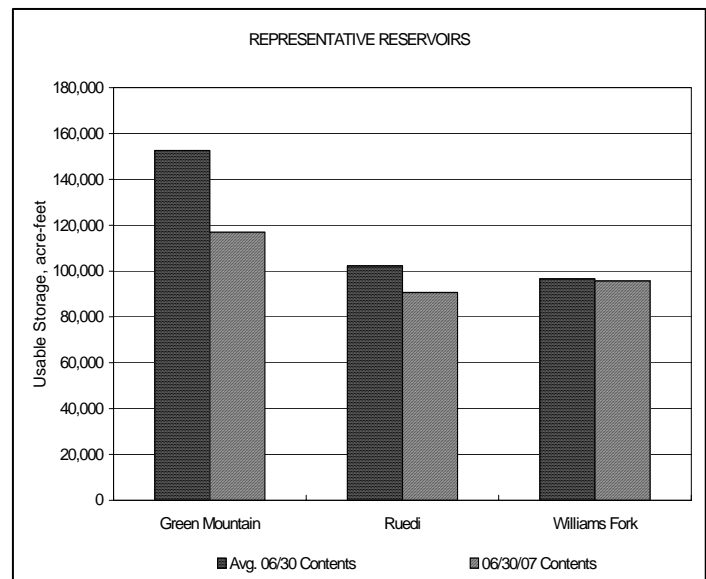
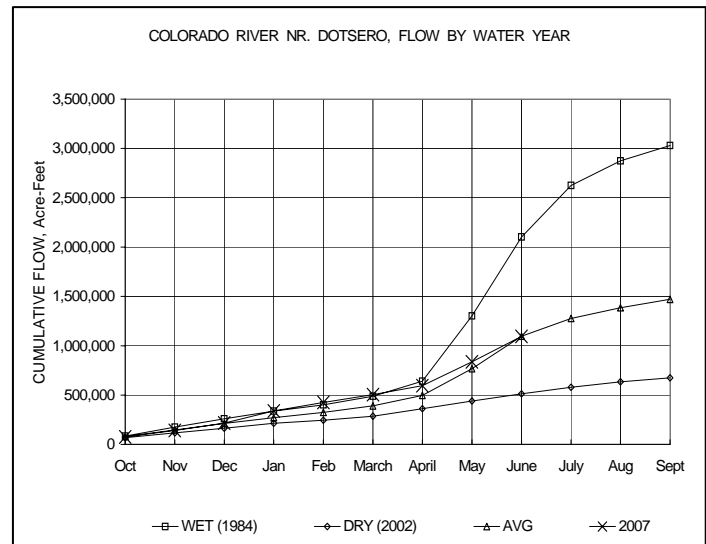
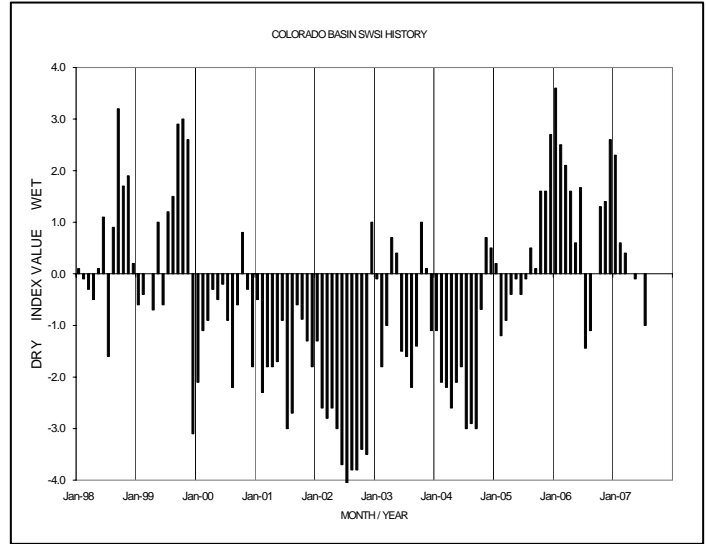
Flows at Dotsero are within the 50-75 percentile for early to late July while Cameo is within the 75-90 percentile. The infrequent rain events prompt more damage to fuel wild fires than the minimal moisture they produce.

Administrative/Management Concerns

The Shoshone power plant experienced a ruptured penstock on Wednesday morning, June 20. The east penstock ruptured approximately one third up from the buildings causing extensive flooding and mud debris to the facility. No injuries occurred. In addition, the recreation path below the facility, along the river, was covered by mud and debris. Xcel Energy operates the plant and is unsure when all repairs will be completed.

Public Use Impacts

Discussions continue with water users throughout the basin as to the administration of a probable Grand Valley call now that the Shoshone plant is down. Although the reservoirs except Granby are all filled, the Grand Valley irrigators depend on the Shoshone call to help postpone their call. Since the Shoshone rights are not being exercised in their historic manner, pursuant to the Orchard Mesa Check Case (91CW247), the Operating Criteria and the non-curtailement provisions are inoperative. Per the Orchard Mesa Check Case, "...During any period that the Operating Criteria are inoperative, no water in the Green Mountain HUP shall be deemed to be surplus ... and releases from the HUP shall only be made to replace out-of-priority depletions by HUP beneficiaries and to make direct deliveries to the HUP beneficiaries...."



Basinwide Conditions Assessment

The SWSI value for the month was -3.7. Flow at the gaging station Yampa River at Steamboat was 570 cfs, as compared to the long-term average of 1729 cfs.

June precipitation was below average for the basin. Precipitation for the month, as measured at the SNOTEL sites operated by the NRCS, was reported at approximately 71% of average for the Yampa and White River basins and 65% of average for the North Platte River basin.

Outlook

The July forecast for the area, based on NOAA data, is for above normal temperatures and below normal to normal precipitation.

Fish Creek Reservoir continued spilling until the last week of June and the storage level at the end of June was reported at slightly below capacity. Yamcolo Reservoir storage level declined in June and the reservoir was at approximately 81% of capacity at the end of the month. Elkhead Creek Reservoir level also declined and the reservoir was at approximately 94% of its' enlarged capacity (approximately 24,900 acre-feet) at the end of June. 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 in the future, fish recovery releases.

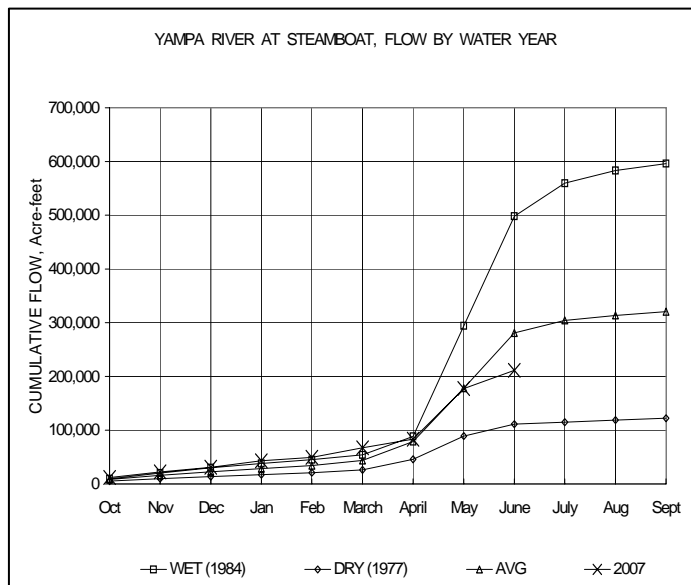
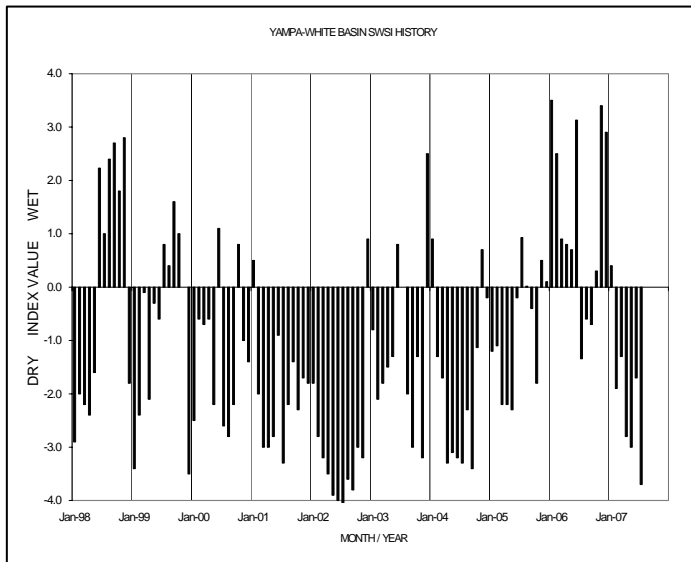
Administrative/Management Concerns

Middle Hunt Creek, Bear River, Little Bear Creek, South Hunt Creek, Piceance Creek, and Morapos Creek remained under administration throughout the month of June. In addition, calls were placed on the following in June: Deer Creek (June 1), Piceance Creek (June 1), Newcomb Creek (June 21), Illinois River (June 23), Fortification Creek (June 24), and Spring Creek (June 28). These creeks/ivers remain under administration.

The River District is intending to release water from Elkhead Creek Reservoir this summer, which Division 6 is responsible for protecting through the Yampa River critical habitat reach.

Public Use Impacts

Elkhead Creek Reservoir opened on May 5 for day-use fishing and recreational activities after being closed for almost two years. A celebration of the completion of the reservoir enlargement is scheduled for July 11, 2007. The Colorado River District will recognize the collaborative efforts of local, state, and federal agencies at the event.



Basinwide Conditions Assessment

The SWSI value for the month was -0.4. Flows at the Animas River at Durango averaged 2,312 cfs (93% of normal) with a maximum average daily peak flow of 3,380 cfs on June 6th. The Dolores River at Dolores averaged 697 cfs (53% of normal) with a maximum average daily peak flow of 1,460 cfs on June 2nd. The La Plata River at Hesperus averaged 60.4 cfs with a maximum average daily peak flow of 128 cfs on June 2nd. June is typically the driest month of the year in Durango and this year was no exception with precipitation for the month at 0.30 inches which is below the 30-year average of 0.66 inches. Precipitation to date in Durango, for the water year, is 12.76 inches which is slightly below the average of 13.27 inches. Temperatures in June were above normal for the month. Durango was 2.3° above its 30-year average high and 4.8° above its 30-year average low.

As of the end of June Vallecito Reservoir contained 124,040 acre-feet compared to its normal contents of 102,829 acre-feet (121% of normal). The storage in Vallecito Reservoir is the 2nd highest amount stored for an end of June period based on 67 years of record. McPhee Reservoir has 369,710 acre-feet compared to its normal contents of 318,871 acre-feet (116% of normal). Lemon Reservoir remained at about the same content as compared to last month, 38,510 acre-feet as compared to its normal content of 33,130 acre-feet (116% of normal). Storage in the three reservoirs was 115% of normal as of the end of June.

Outlook

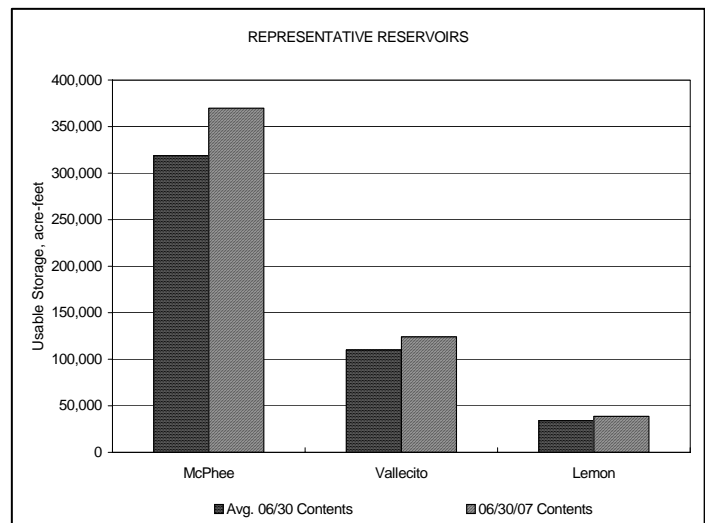
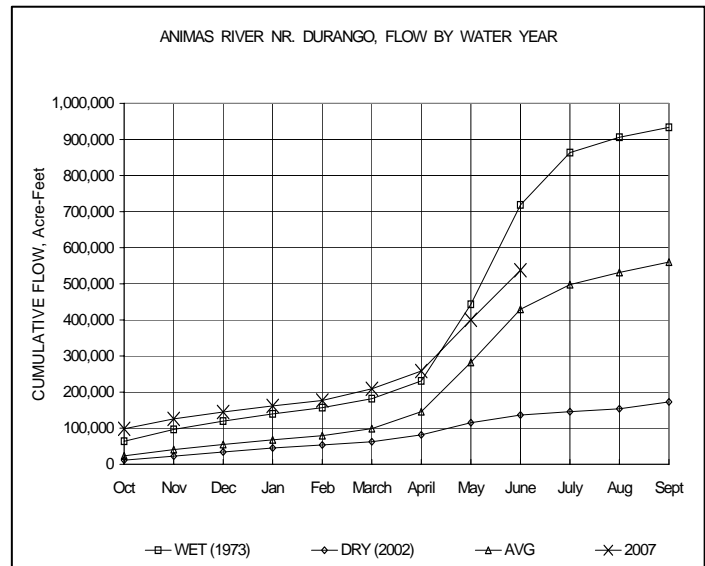
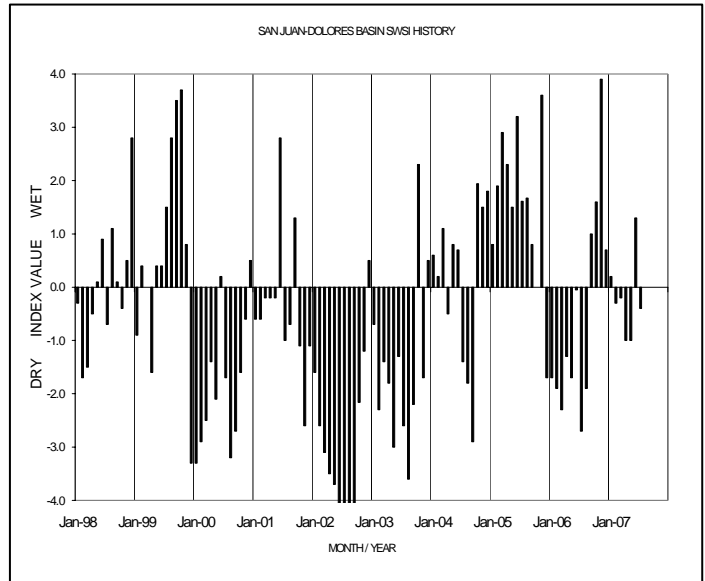
Higher than normal temperatures and lower than normal precipitation in June required the tapping into reservoir storage to keep rivers flowing. There are only 36 years out of 112 years of record were the month of June was drier than this year. The monsoon rains of July should kick in soon but first few days of July give no indication they are ready to start yet.

Administrative/Management Concerns

The La Plata compact continued to be on call the entire month of June. New Mexico placed a call for 80 cfs on May 22nd that continued for the entire month of June.

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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