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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April 2008

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 snowpack, reservoir storage, and precipitation for the winter period (November through April). During the winter period, snowpack 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 March range from a high value of +3.6 in the Gunnison Basin to a low value of +0.2 in the Yampa/White Basin. All of the basins experienced a slight decline in the values from last month, except the South Platte Basin.

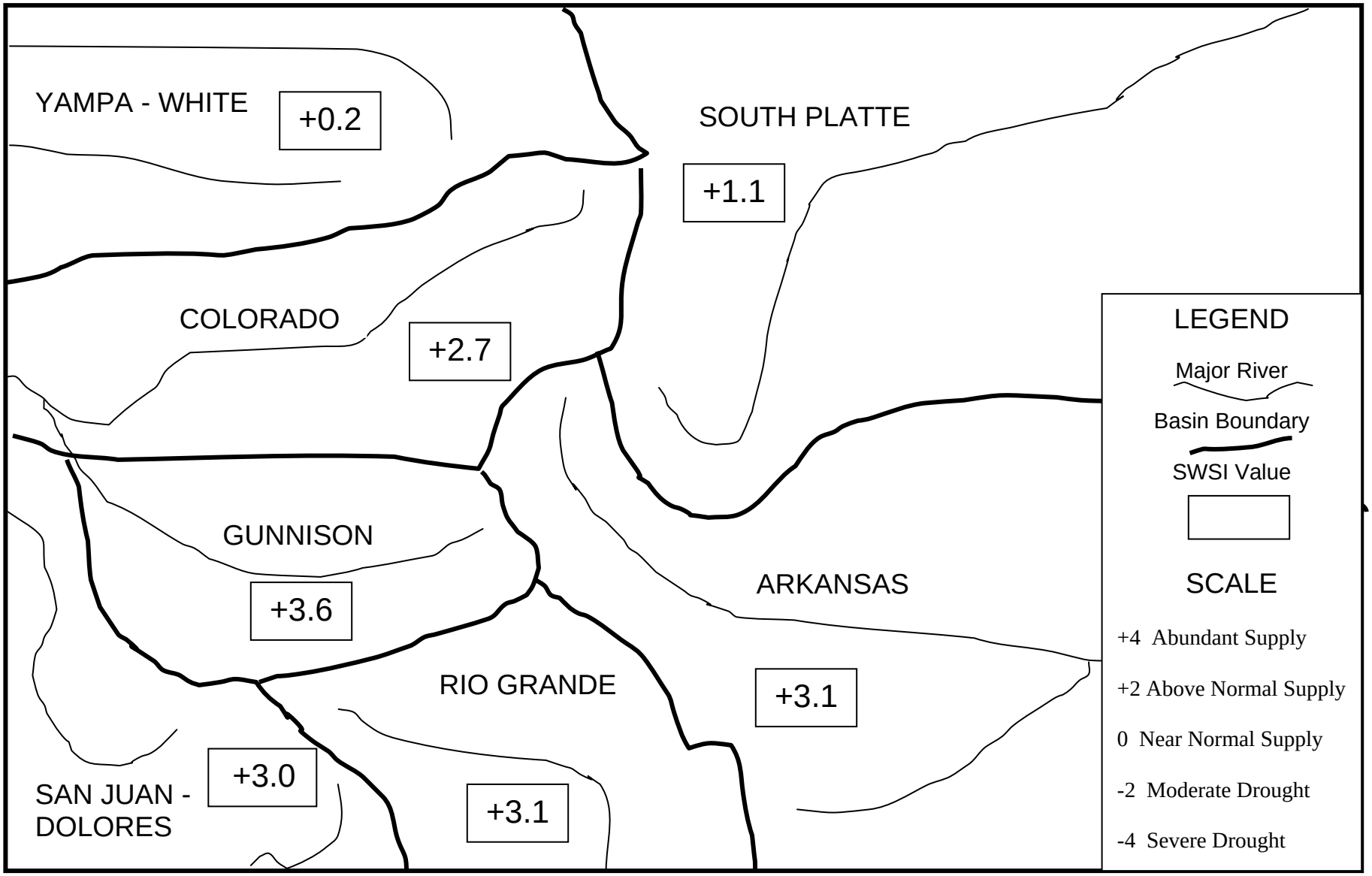
The following SWSI values were computed for each of the seven major basins for April 1, 2008, and reflect the conditions during the month of March.

Basin	April 1, 2008 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+ 1.1	+ 0.9	+ 0.2
Arkansas	+ 3.1	- 0.2	+ 3.8
Rio Grande	+ 3.1	- 0.6	+ 2.6
Gunnison	+ 3.6	- 0.3	+ 4.5
Colorado	+ 2.7	- 0.2	+ 2.3
Yampa/White	+ 0.2	- 0.4	+ 1.5
San Juan/Dolores	+ 3.0	- 0.9	+ 3.2

Scale

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

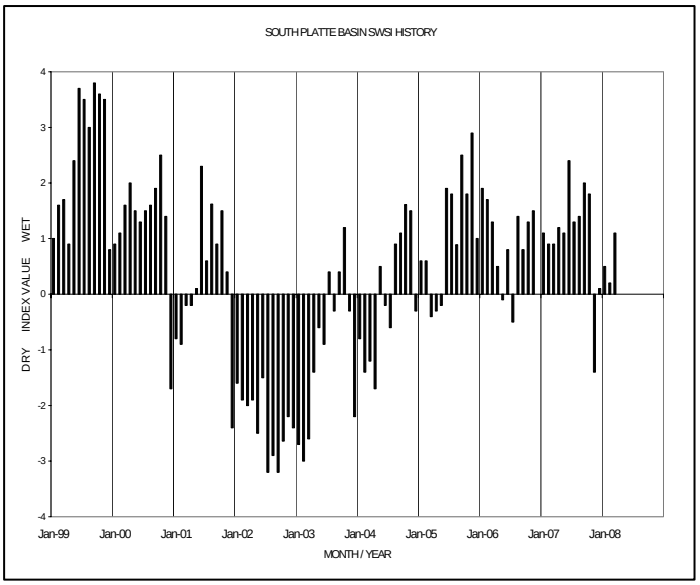
SURFACE WATER SUPPLY INDEX FOR COLORADO



April 1, 2008

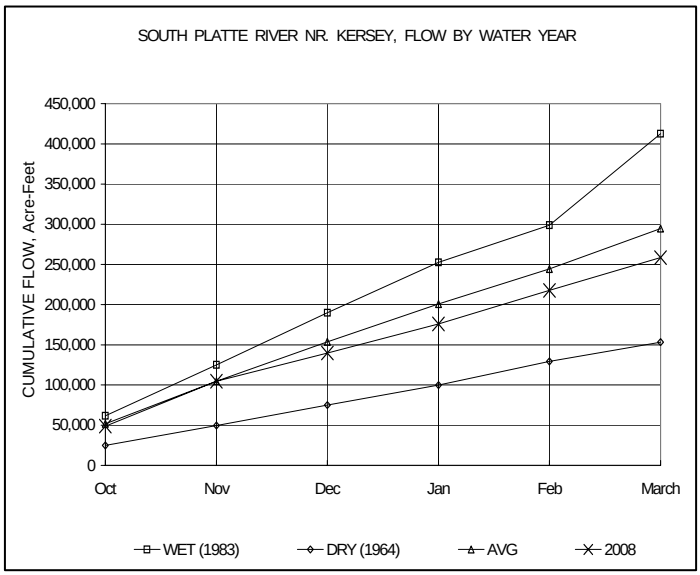
Basinwide Conditions Assessment

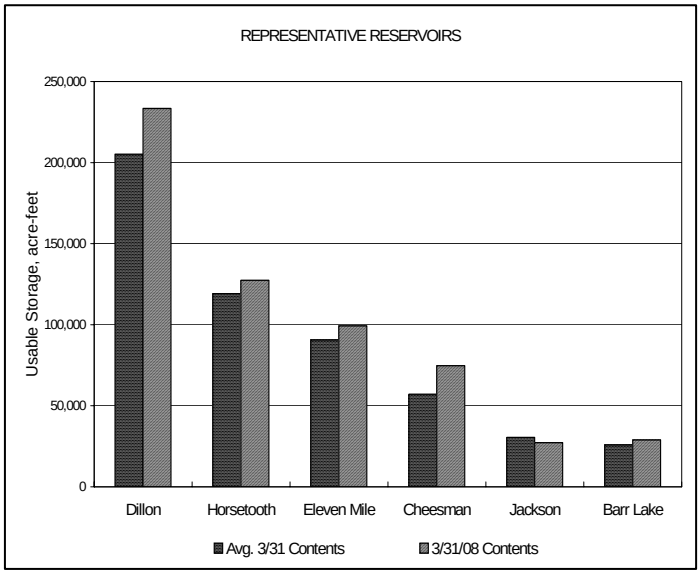
The SWSI value for the month was +1.1. Cumulative storage for the six reservoirs graphed on this page was 112% of normal as of the end of March. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 100% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 95% of capacity. The Natural Resources Conservation Service reports that April 1 snowpack is 108% of normal. Flow at the gaging station South Platte River near Kersey was 663 cfs, as compared to the long-term average of 684 cfs. Flow at the Colorado/Nebraska state line averaged 100 cfs.



Outlook

The primary diversions in March continued to be for storage. By the end of the month, all of the major reservoirs on the South Platte had finished filling. This allowed for a change in call to recharge by the end of the month. Recharge should help well user groups in providing augmentation to replace well pumping depletions. Snowpack is slightly above average for the basin with far above average snowpack in the southern part of the basin. With this snowpack, it appears we will have at least average runoff. The concern right now has been the fairly dry conditions on the plains. With these conditions, irrigation users may need to divert water to initially bring up their crops prior to higher flows in the spring. Thus, we could see calls for irrigation in the next two weeks unless we get rainfall. Shortages of direct flow water may require the use of reservoir supplies depleting those available for later in the summer. One or two well timed wide spread rainstorms would significantly assist in assuring this is a good water year for irrigation users. Supply conditions for municipal users are in good shape for this time of year with in-basin reservoir levels near full for most users and good supplies appearing to be available from transbasin sources.





Basinwide Conditions Assessment

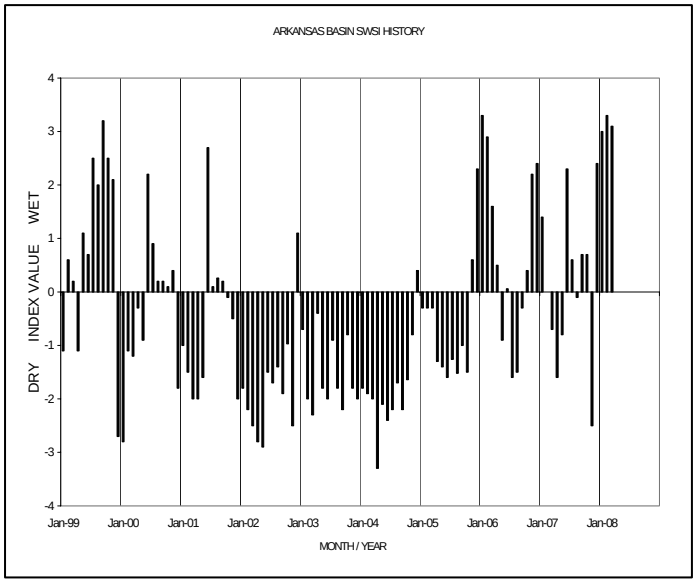
The SWSI value for the month was +3.1 The Natural Resources Conservation Service reports that April 1 snowpack is 141% of normal. Flow at the gaging station Arkansas River near Portland was 711 cfs, as compared to the long-term average of 368 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 100% of normal as of the end of March.

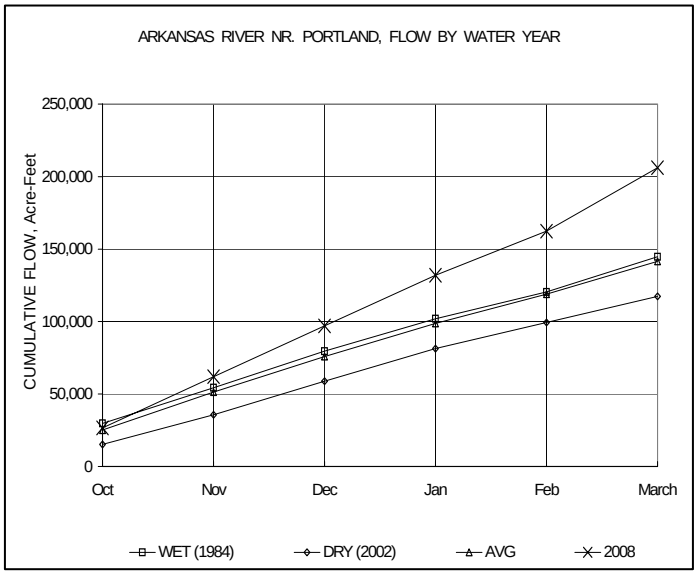
Outlook

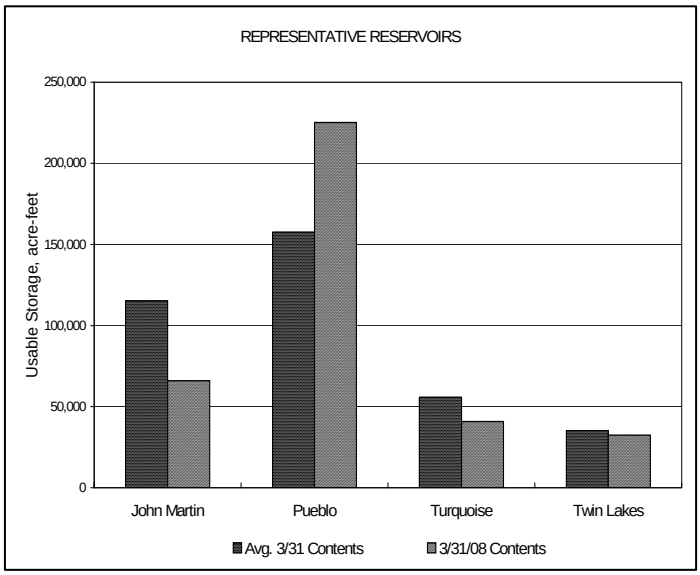
Total distributed reservoir storage following the Pueblo Winter Water Program was 153,035 acre-feet, including 53,237 acre-feet in Pueblo Reservoir, 77,075 acre-feet in off-channel reservoirs, and 22,155 acre-feet in John Martin Reservoir (after distribution to accounts). Storage in John Martin Reservoir through March 31, 2008 in conservation storage totaled 26,097 acre-feet.

Administrative/Management Concerns

Heavy snowpack in the Arkansas Basin has prompted significant planning in anticipation of potential runoff issues and to manage storage in Pueblo Reservoir and upstream reservoirs in an optimum manner to avoid spills from Pueblo Reservoir while still preserving adequate space for higher than average expected Fryingpan-Arkansas Project water imports.



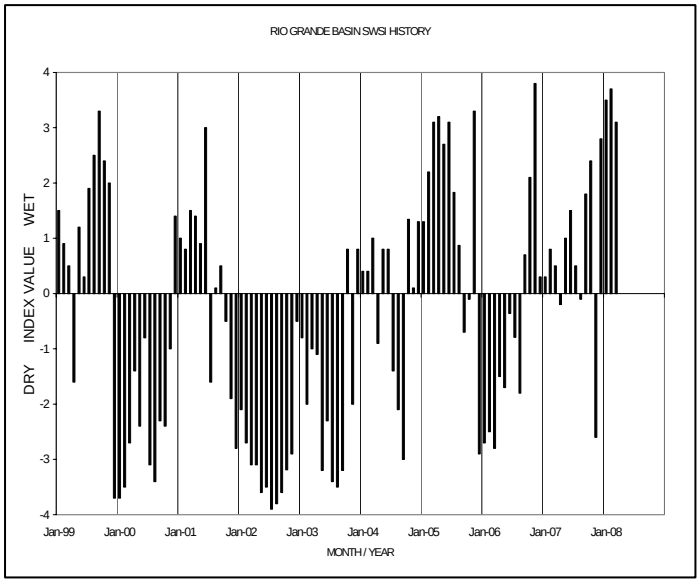




Basinwide Conditions Assessment

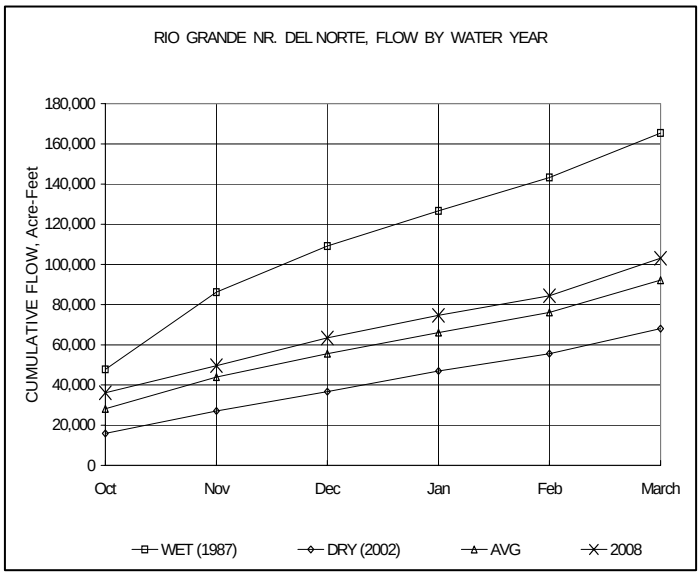
The SWSI value for the month was +3.1. The Natural Resources Conservation Service reports that April 1 snowpack is 140% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 303 cfs (113% of normal). The Conejos River near Mogote had a mean flow of 110 cfs (140% of normal). Flow to the state line was 144% of normal. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 110% of normal as of the end of March.

Weather conditions in the San Luis Valley and surrounding mountains were much drier than normal during March. Alamosa received only 0.13 inches of precipitation during the month, 0.33 inches below normal. The mountains received only one-third of the normal amount.



Outlook

Recent NRCS stream flow forecasts are calling for a range of about 120% of normal (Sangre de Cristo Range from Culebra Creek northward to Ute Creek near Fort Garland) to 189% (Rio San Antonio drainage) of average runoff this year. Expected runoff at the Rio Grande near Del Norte gaging station is 140 percent of normal and 150 percent of average for the Conejos near Mogote. These estimated runoffs are approximately 10 to 30% lower than the March 1 forecasts. This reflects the below normal snowfall in the mountains surrounding the San Luis Valley during the past 30 days. Based on the 90-day climate forecast (warm and dry) and snowpack summaries available from the Natural Resources Conservation Service, the maximum snow water equivalent accumulation has already been reached during 2008. This usually occurs on April 10. But the peak this year was probably reached on March 20.

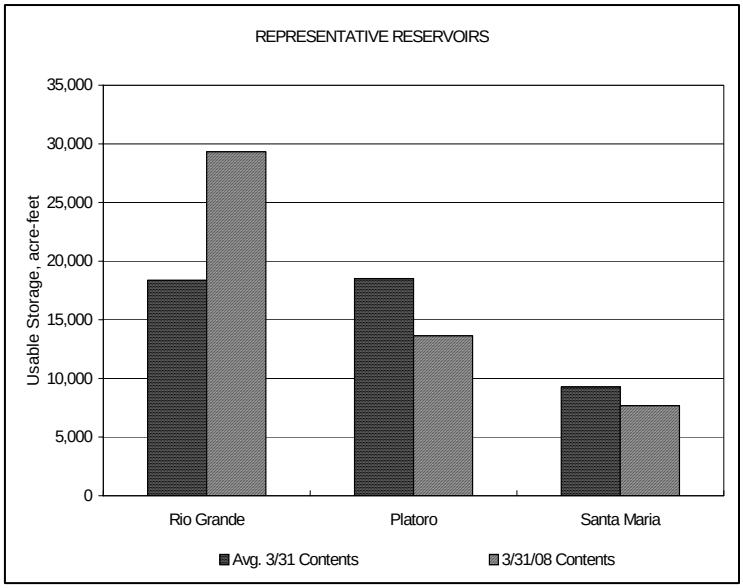


Administrative/Management Concerns

Local officials are now less fearful of damaging floods during the 2008 runoff season. Depending on the severity of the melt-out, runoff levels might be just slightly above normal. The 2008 annual meeting of the Costilla Creek Compact Commission will be held at the Clarion Inn of the Rio Grande in Alamosa on May 8, 2008 at 10 a.m. The public is invited to attend.

Public Use Impacts

Despite the dry March, winter sports enthusiasts reliant on snowcover still enjoyed the deep snowpack. Finally, enough sun and warmth freed the lower elevations from ice and snow cover and temperatures rose to a moderate level. It is anticipated that the irrigation season will begin around April 11.



Basinwide Conditions Assessment

The SWSI value for the month was +3.6 The Natural Resources Conservation Service reports that April 1 snowpack is 133% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 81.6 cfs, as compared to the long-term average of 62.0 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 126% of normal as of the end of March.

Outlook

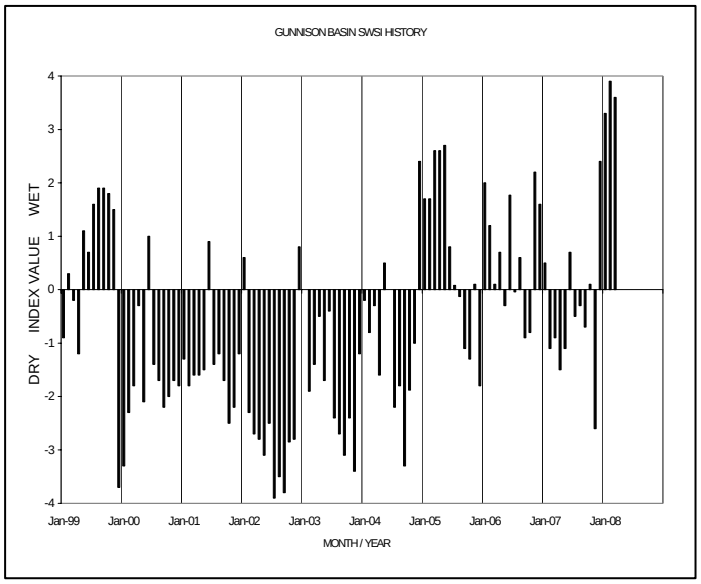
Snowpack conditions have decreased in the Gunnison Basin over the month of March, with the average snow water equivalent measurements from NRCS SNOTEL sites reporting 146 percent of average on February 29th to 128 percent of average on March 31st. Supply conditions still look excellent for 2008. Given the cooler than average temperatures this winter, runoff appears to be about a month later than normal this year. Low snow still exists in most areas of the basin at and above 7000 feet, which will significantly add to this year's runoff.

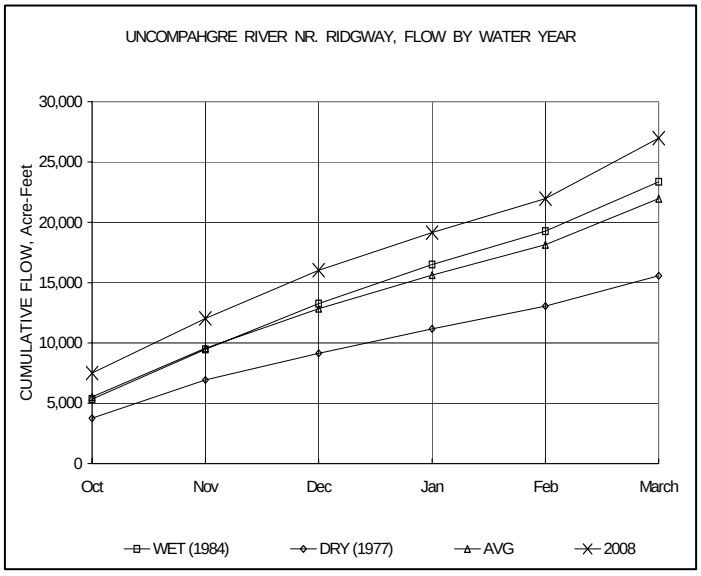
Administrative/Management Concerns

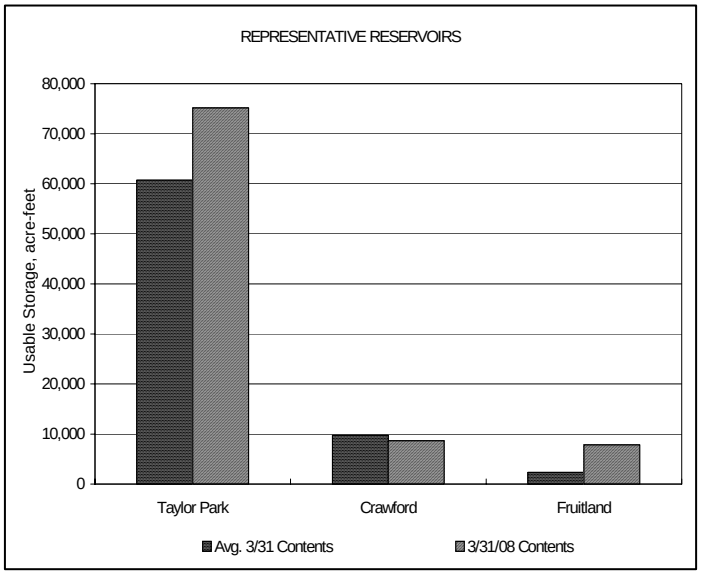
The Bureau of Reclamation completed their scheduled maintenance operations on the stilling basins below Crystal Dam and Blue Mesa Dam in March. Flows out of the Aspinall Unit were stopped briefly for the work but have returned to 2,170 cfs in order to bring down Blue Mesa Reservoir elevation and to supply the Gunnison Tunnel diversion. Ridgway Reservoir and Taylor Park Reservoir have also significantly increased releases in March to accommodate expected runoff.

Public Use Impacts

Farmers in the Uncompahgre Valley will be ready for irrigation water by the beginning of April. However, the upper Gunnison River basins above Gunnison are still heavily covered with snow and will be at least a full month behind the normal irrigation season.

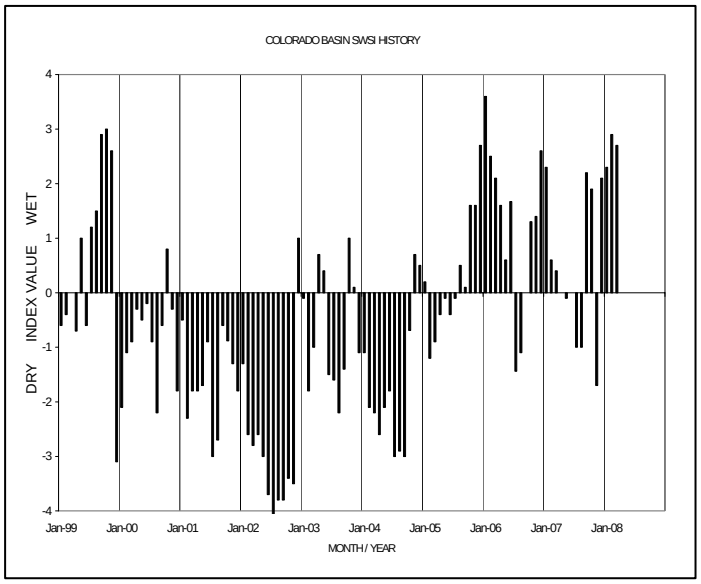






Basinwide Conditions Assessment

The SWSI value for the month was +2.7. The Natural Resources Conservation Service reports that April 1 snowpack is 123% of normal. Flow at the gaging station Colorado River near Dotsero was 1037 cfs, as compared to the long-term average of 1083 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 126% of normal as of the end of March.

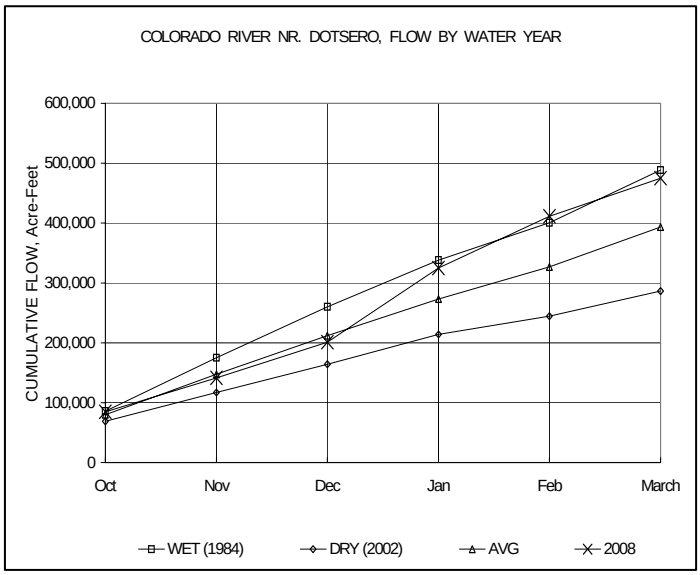


Outlook

Total Colorado River Basin precipitation levels decreased from 125 to 115 percent of average during the month of March. Reservoir operators continue to open storage space for anticipated heavy run-off at Ruedi and Green Mountain Reservoirs with increases of 50 cfs (4-2) and 120 cfs (3-20) respectively. Given the heavy precipitation in early April, these release rates are likely to increase further for anticipated heavy run-off.

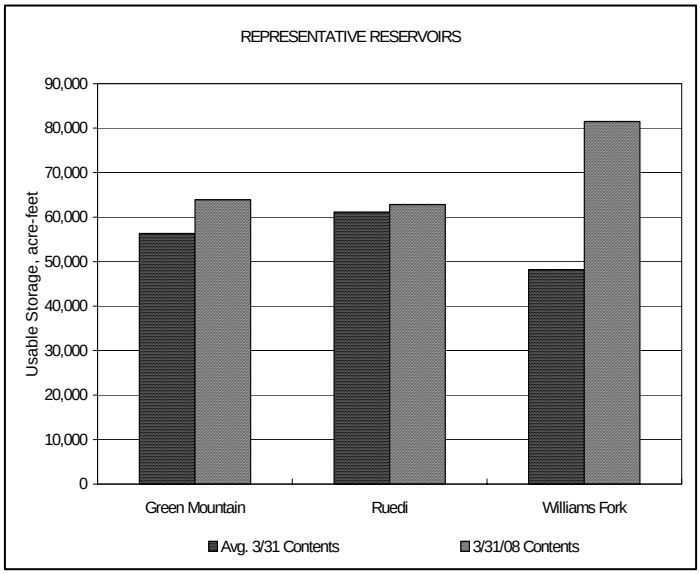
Administrative/Management Concerns

Although not at record level, the NRCS data shown at the headwaters of the Roaring Fork indicates a snow water equivalent value of 23.5 inches (40 percent above average) as of April 4th. Recent heavy precipitation will boost this value, but unlikely to the record level of 27.7 inches recorded May 19, 1995. The above-average precipitation levels this year have prompted CDOT to initiate removal of approximately 1500 cubic yards of sand and river cobble that has accumulated upstream of the Upper Basalt Bypass Bridge on Highway 82. Both Garfield and Mesa County Sheriff's Offices have issued flood hazard warnings. However, the impact of springtime temperatures and wind conditions on snowmelt could impact the forecast runoff considerably.



Public Use Impacts

The whitewater park/wave feature on the Colorado River in West Glenwood Springs was completed in early March. The park was designed to create waves over a wide range of flows, and potentially allow Glenwood Springs to host international-level kayaking competitions. Until now, a well-known wave in South Canyon west of Glenwood Springs has been the closest feature, which does not develop fully until the river reaches a 3500 cfs flow rate.



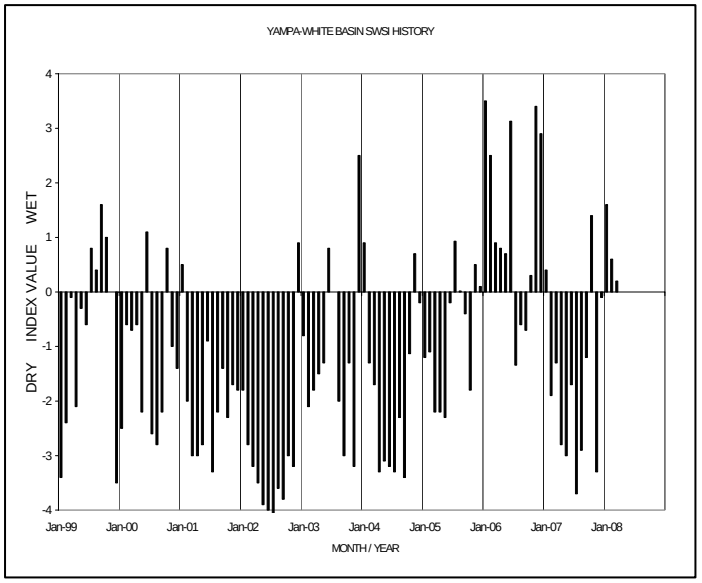
Basinwide Conditions Assessment

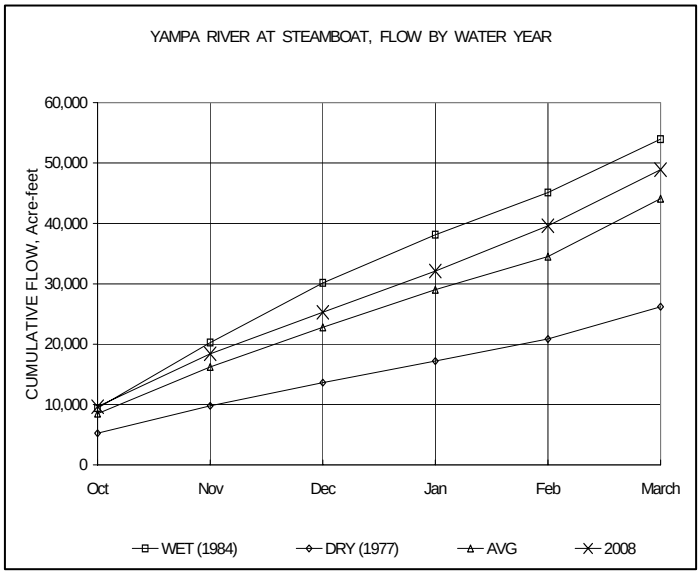
The SWSI value for the month was +0.2. Flow at the gaging station Yampa River at Steamboat was 151 cfs, as compared to the long-term average of 156 cfs. The Natural Resources Conservation Service reports that April 1 snowpack is 109% of normal.

March precipitation was 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 82% of average for the Yampa and White River basins and 84% of average for the North Platte River basin. Year-to-date precipitation is reported at 109% of average for the combined Yampa, White, and North Platte River basins. Snowpack is near average to above average for the area. The snow water equivalent (SWE) as of March 31, 2008 for the Yampa and White River basins was 109% of average and for the Laramie and North Platte River basins was 107% if average. For the individual basins in Division 6, the snowpack at the end of the month was 107% of average for the North Platte River basin, 113% of average for the Yampa River basin, and 96% of average for the White River basin. At 121% of average, the Elk River watershed touted the highest figures in the area, and this is the highest April 1 percentage the sub-basin has seen since 1997.

NRCS continues to predict near average to well above-average runoff in the Yampa, White, and North Platte River basins. The latest runoff forecasts from the NRCS for the April through July period are 120% of average for the North Platte River near Northgate, 116% of average for the Yampa River near Maybell, 129% of average for the Little Snake River near Lily, and 103% of average for the White River near Meeker. Forecast volumes range from 103% of average for the White River near Meeker to 142% of average for Elkhead Creek below Maynard Gulch.

Due to the continued cold night temperatures, many of the Division 6 stream gages remained closed during March, but are anticipated to re-open in April as the night temperatures increase.





Outlook

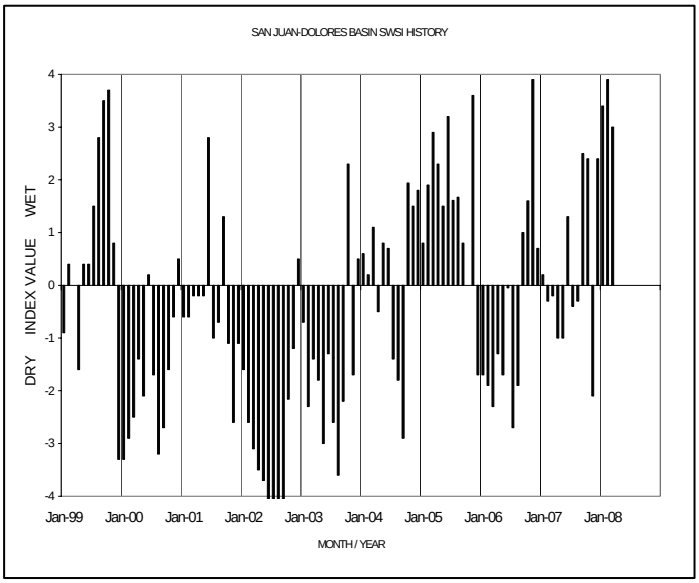
Yamcolo Reservoir and Elkhead Creek Reservoir storage levels continued to rise throughout the month and the reservoirs were reported at approximately 77% and 83% of capacity, respectively, at the end of March. Fish Creek Reservoir level dropped slightly in March and was at approximately 68% of capacity 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 recreation purposes, as well as fish recovery releases.

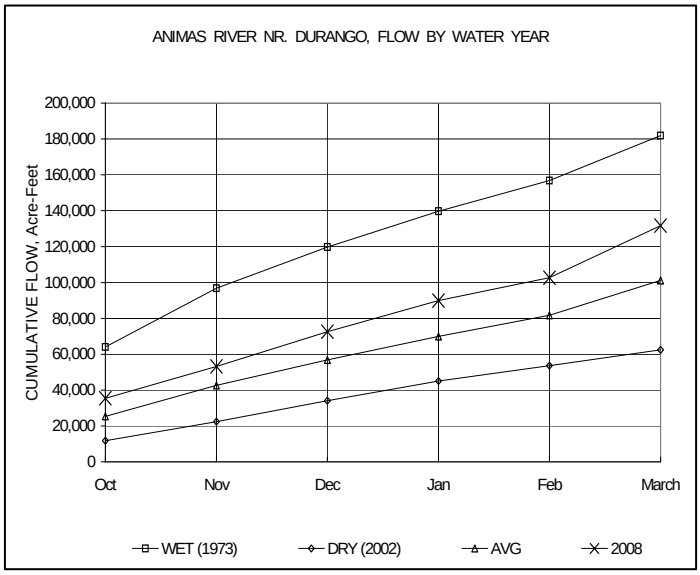
Basinwide Conditions Assessment

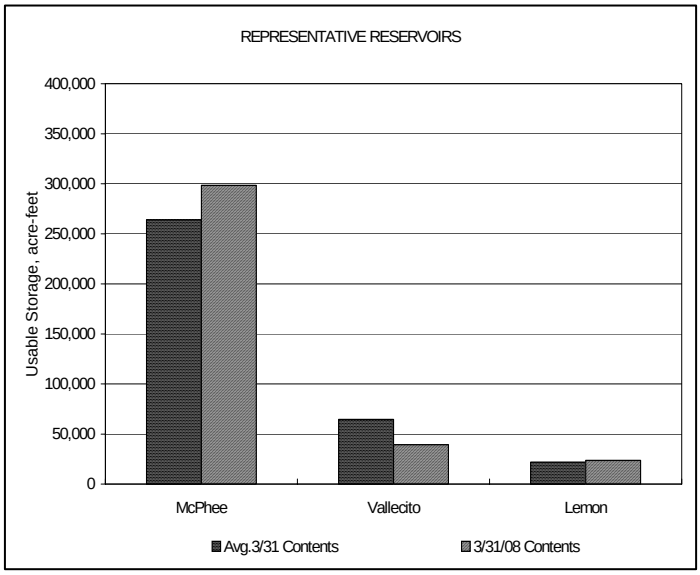
The SWSI value for the month was +3.0. The Natural Resources Conservation Service reports that April 1 snowpack is 126% of normal. Flows at the Animas River at Durango averaged 505 cfs (168% of normal) with a maximum average daily peak flow of 812 cfs on Mar. 28th. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 103% of normal as of the end of March.

The Dolores River at Dolores averaged 273 cfs (205% of normal) with a maximum average daily peak flow of 641 cfs on Mar. 29th. The La Plata River at Hesperus averaged 23.1 cfs (144% of normal) with a maximum average daily peak flow of 83 cfs on Mar. 29th. Precipitation in Durango was 0.08 inches for March which is below the 30-year average of 1.79 inches. Precipitation to date in Durango, for the water year, is 13.33 inches which is above the average of 9.95 inches. Temperatures were normal for the month. Durango was 1.2° above its 30-year average high and right at average for the 30-year average low.

At the end of the month Vallecito Reservoir contained 39,175 acre-feet compared to its normal contents of 55,524 acre-feet (71% of normal). Vallecito Reservoir began releasing water in early February to prepare for the expected above average inflows. McPhee Reservoir was up to 298,350 acre-feet compared to its normal contents of 270,698 acre-feet (110% of normal), while Lemon Reservoir was up to 23,629 acre-feet as compared to its normal content of 20,391 acre-feet (116% of normal).







Outlook

Very little precipitation and normal temperatures was the major theme of March 2008. With only 0.08 inches of precipitation in March it ranked as one of the lowest monthly totals on record for the last 112 years (108 of 112). Above average flows are still expected throughout the basin this spring and summer. To date the total snow-water-equivalent within the basin has exceeded the average snow-water-equivalent for the year with the average peak date occurring in April. The NRCS data on March 31, 2008 reported a snow-water-equivalent of 126% of average. The Pine River Water Conservancy District continues to release water from Vallecito Reservoir to ensure there is enough available space to hold the spring runoff.

Administrative/Management Concerns

The compact period on the La Plata between Colorado and New Mexico began on February 15th, but remained off compact call for the 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. The low level snow melting in the La Plata River basin has kept the flow at the Stateline well above the flows at Hesperus.

Public Impacts

McPhee, Vallecito and Navajo reservoirs all began or continued to ramp up releases in preparation for the expected above average rivers flows this spring.

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