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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March 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 snowpack, reservoir storage, and precipitation for the winter period of November through April (December 1 through May 1). 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 February (March 1) range from a high value of +1.6 in the Rio Grande Basin to a low value of -3.2 in the Yampa/White Basin. Two of the basins (Rio Grande and Colorado) experienced a gain from the previous month's value, four of the basins (South Platte, Arkansas, Gunnison, and Yampa/White) experienced a loss from the previous month's value, and one of the basins (San Juan/Dolores) remained unchanged from the previous month's value.

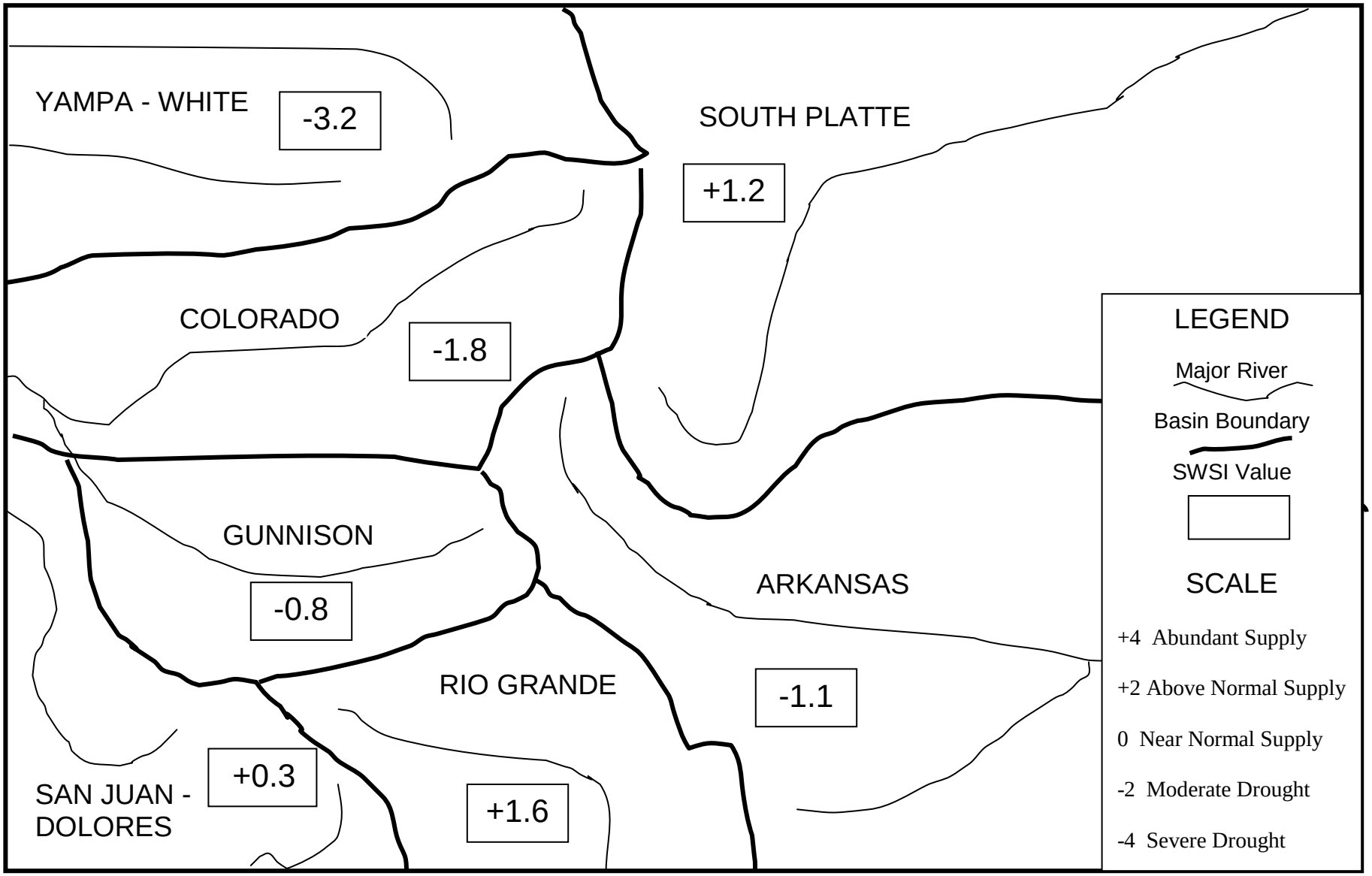
The following SWSI values were computed for each of the seven major basins for March 1, 2010, and reflect the conditions during the month of February.

Basin	March 1, 2010 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+1.2	- 0.1	+0.4
Arkansas	- 1.1	- 0.2	- 2.0
Rio Grande	+1.6	+0.1	- 0.1
Gunnison	- 0.8	- 0.1	- 1.6
Colorado	- 1.8	+0.3	- 1.9
Yampa/White	- 3.2	- 0.6	- 3.1
San Juan/Dolores	+0.3	0.0	- 0.7

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



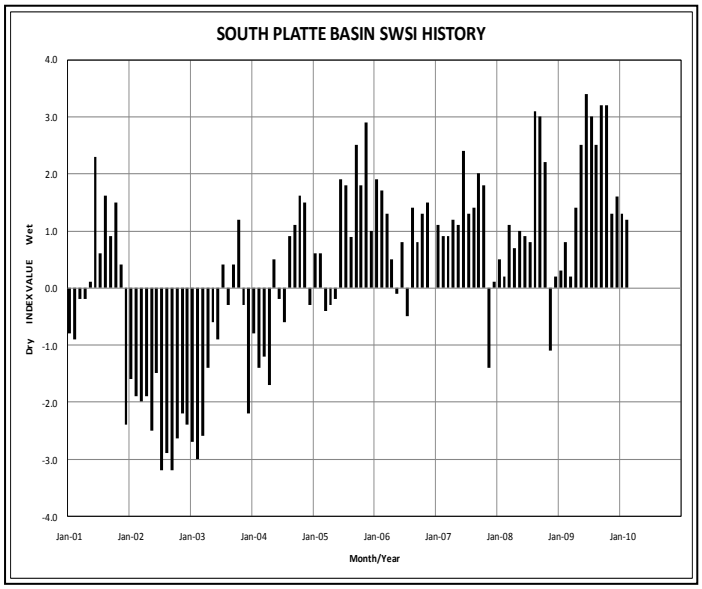
February 1, 2010

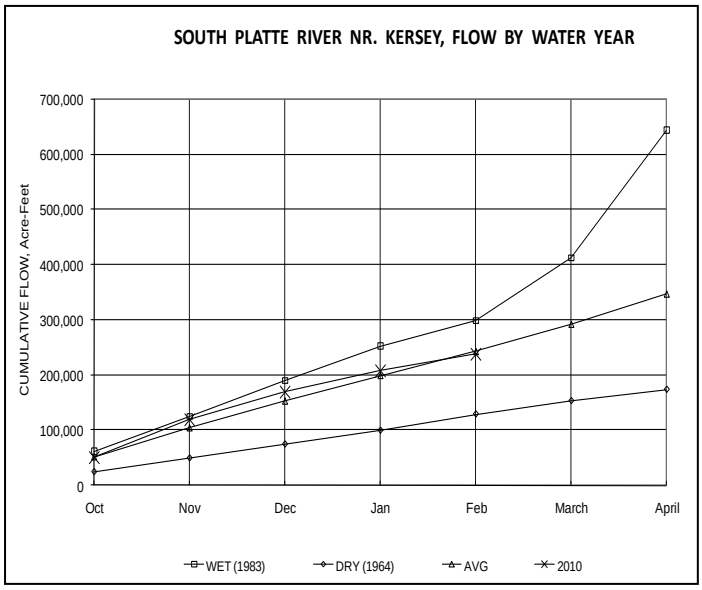
Basinwide Conditions Assessment

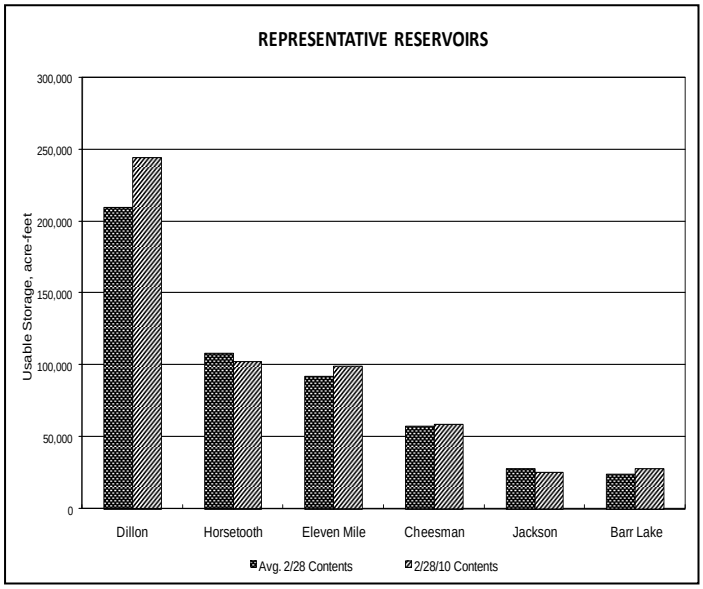
The SWSI value for the month was +1.2. The Natural Resources Conservation Service reports that March 1 snowpack is 82% of normal. Flow at the gaging station South Platte River near Kersey was 542 cfs, as compared to the long-term average of 674 cfs. Flow at the Colorado/Nebraska state line averaged 328 cfs. Cumulative storage for the six reservoirs graphed on this page was 107% of normal as of the end of February. Cumulative storage in the major plains reservoirs (Julesberg, North Sterling, and Prewitt) is at 95% of capacity. Cumulative storage in the major upper-basin reservoirs (Cheesman, Eleven Mile, Spinney, and Antero) is at 87% of capacity.

Outlook

The main diversions continued for reservoir storage and municipal use in February. All of the reservoirs on the plains were nearing full by the end of the month and the call on the mainstem of the South Platte was removed in early March. While some reservoirs on tributaries were not full, it appears these remaining reservoirs will fill if there is any significant runoff this spring providing a good start to meeting next year's water supply demand. Snowpack continues to lag behind average throughout the basin, but snow the next two months provide over 40% of the snow water content in an average year and much more in some years.







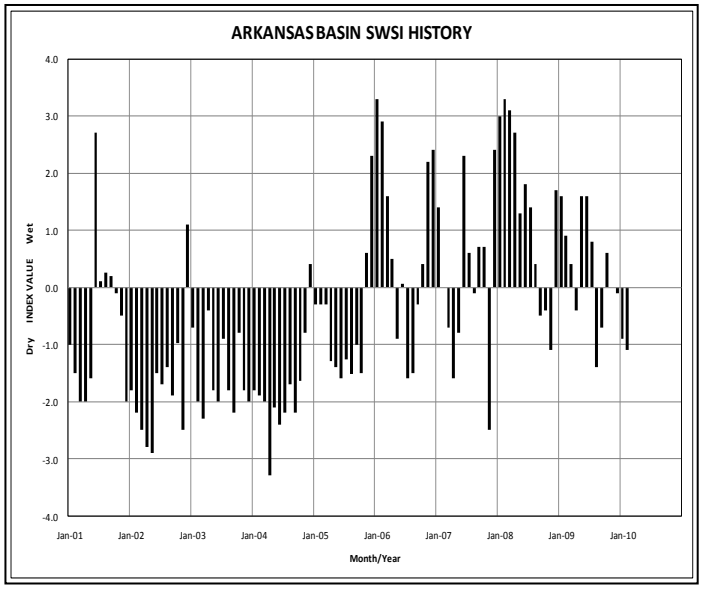
Basinwide Conditions Assessment

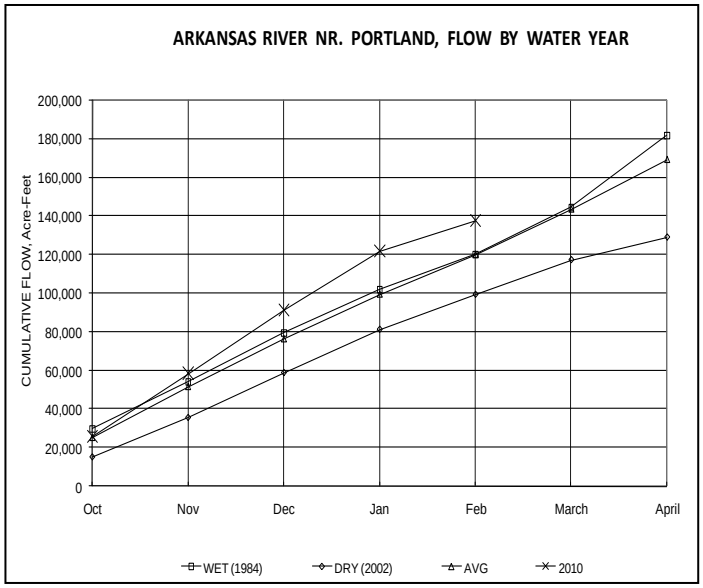
The SWSI value for the month was -1.1. The Natural Resources Conservation Service reports that March 1 snowpack is 98% of normal. Flow at the gaging station Arkansas River near Portland was 281 cfs, as compared to the long-term average of 369 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 114% of normal as of the end of February.

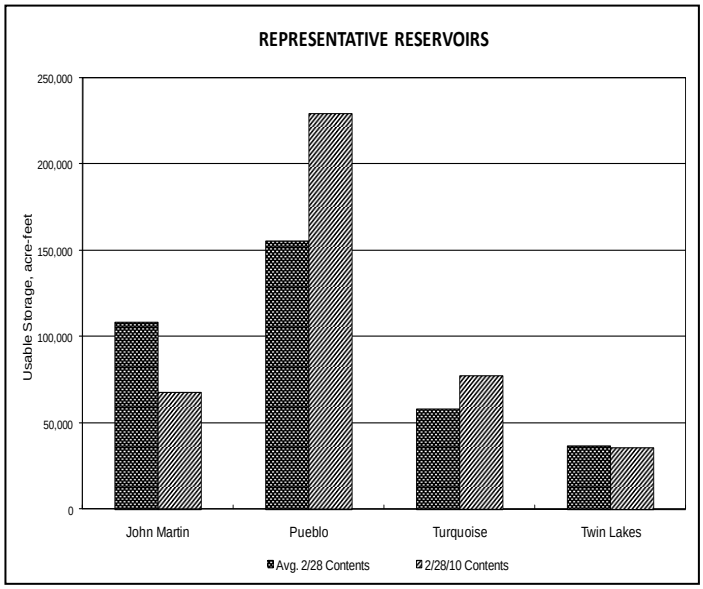
Administrative/Management Concerns

Reservoir storage in the Pueblo Winter Water Program totaled 128,840 acre-feet as of the end of February. This storage amount is slightly lower than last year's storage to date and represents 101% of the past five-year average. Conservation storage in John Martin Reservoir has accumulated 24,196 acre-feet versus 22,321 acre-feet as of the end of February last year.

The Bureau of Reclamation requested permission to allow the Winter Water storage program to temporarily push storage into the Joint Use Pool in Pueblo Reservoir for an extended period of time from April 15th to May 1st. The Corps of Engineers approved this temporary operation with the condition that the amount of encroachment not exceed 10,000 acre-feet.







Basinwide Conditions Assessment

The SWSI value for the month was +1.6. The Natural Resources Conservation Service reports that March 1 snowpack is 108% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 150 cfs (84% of normal). The Conejos River near Mogote had a mean flow of 50 cfs (96% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 126% of normal as of the end of February.

While precipitation on the Valley floor and the neighboring mountains was near normal during February, temperatures were well below normal (-4.7 degrees).

A few minor snow-producing weather systems slid across the upper Rio Grande basin during the month. The result is that snowpack accumulation stood at approximately 110% of normal at the end of the month.

Outlook

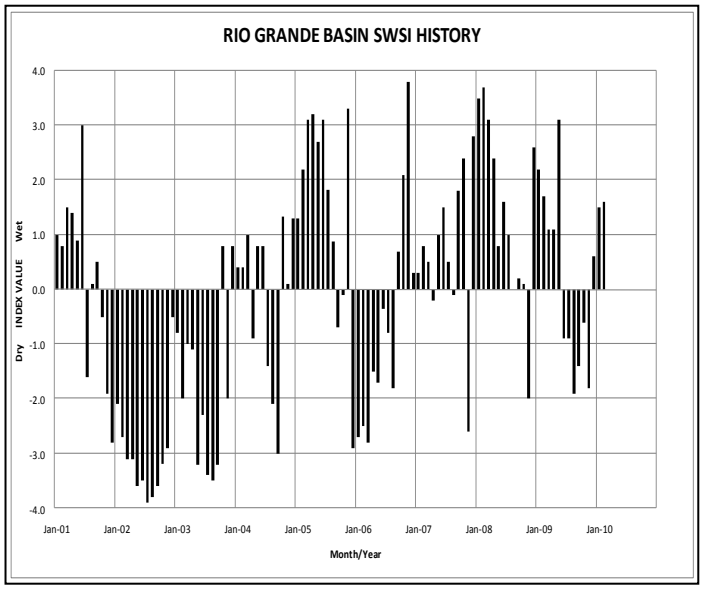
The Natural Resources Conservation Service stream flow forecasts are now predicting runoff in area streams to be in the range of 85 to 115% of average during the 2010 irrigation season. The southern mountains are in the best condition at approximately 115% of normal with gradual decline to the northern end of the San Luis Valley where runoff is forecasted at 85% of normal.

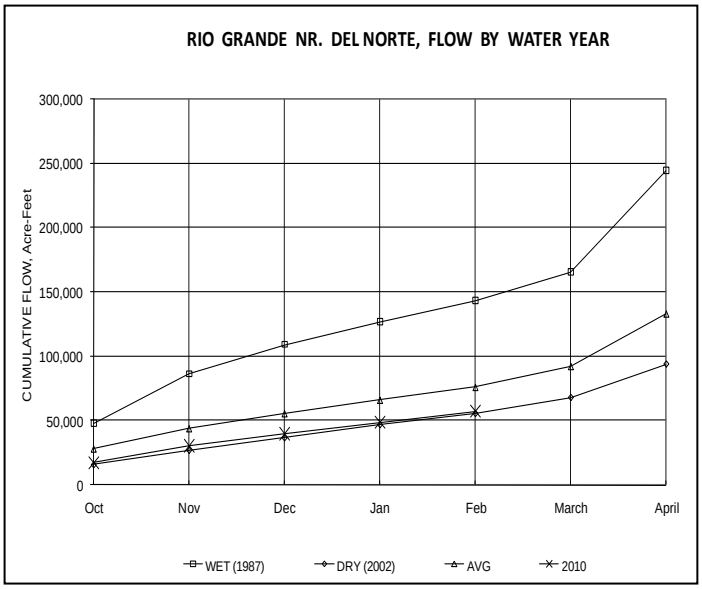
Administrative/Management Concerns

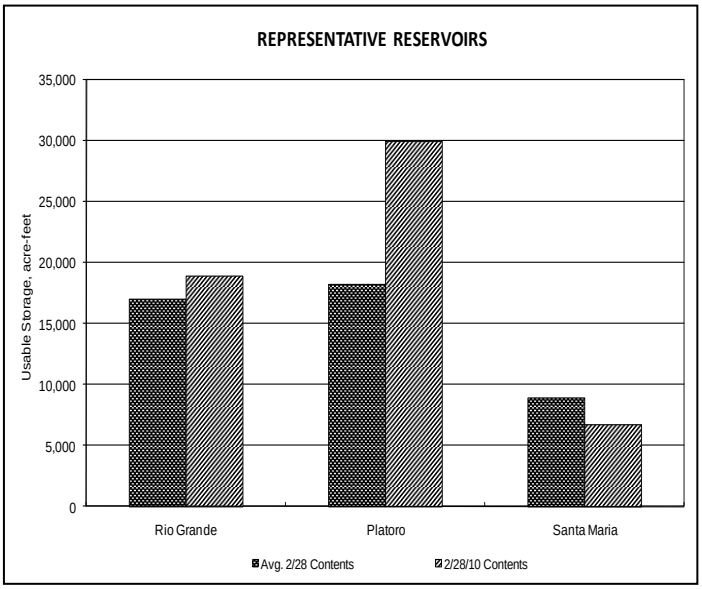
Colorado will host the 71st Annual Meeting of the Rio Grande Compact Commission on Friday, March 26, 2010 at the Inn of the Rio Grande located just east of Colorado Highway 17 on US Highway 160. The meeting will begin at 9:00 a.m., and is open to the public.

Public Use Impacts

Warming temperatures started "mud season" a few days early this year. However, area winter sports enthusiasts are enjoying the good snowpack conditions.







Basinwide Conditions Assessment

The SWSI value for the month was -0.8. The Natural Resources Conservation Service (NRCS) reports that March 1 snowpack is 96% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 37.5 cfs, as compared to the long-term average of 45.6 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 96% of normal as of the end of February.

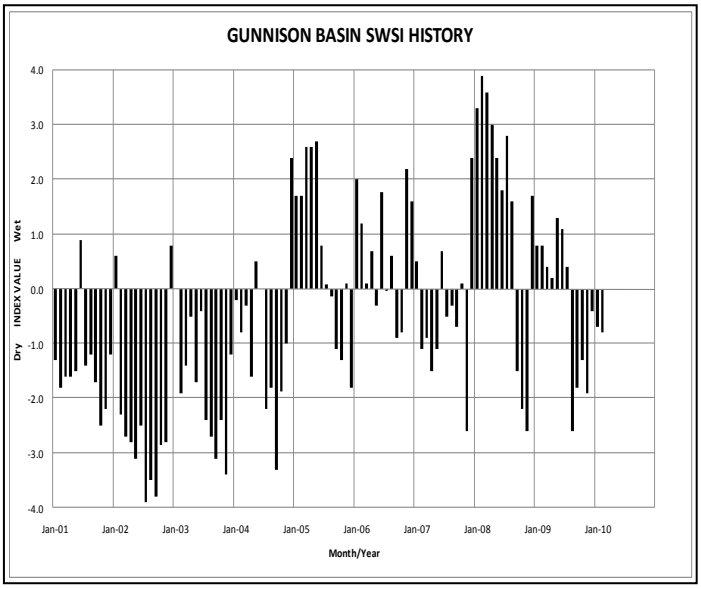
The Gunnison Basin seems to be in the path of the storm tracks this winter. The northern part of the state is being bypassed by much of the storm energy driven by the El Nino conditions in the Pacific Ocean. The southern part of the state is receiving the full measure of the storms as the jet stream brings them across the Rocky Mountains. Division 4 appears to be the dividing line for the track of these storms this winter, as the upper Gunnison, Tomichi and North Fork Gunnison basins are currently at or below 90% of average snowpack. The San Miguel Basin is nearly 100% of average snowpack. Lower than normal temperatures have kept much of the low snow (below 8,000 feet elevation) from melting off early, with snow still on the ground all the way down to Delta.

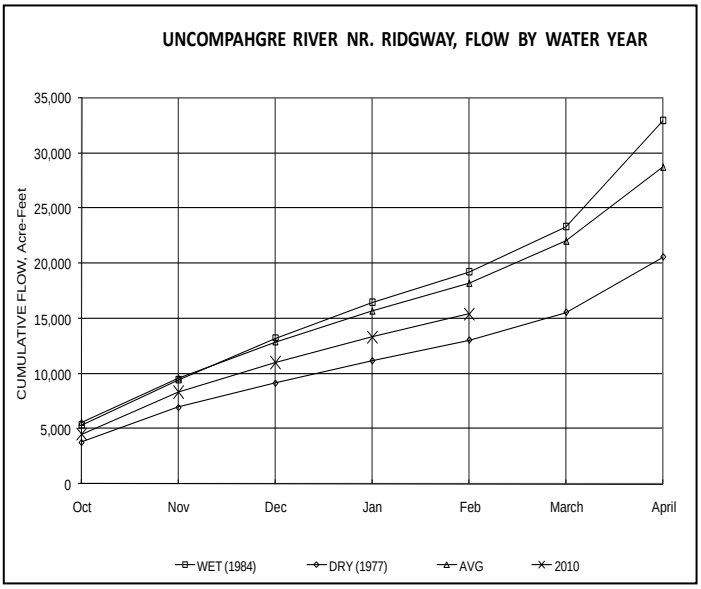
Outlook

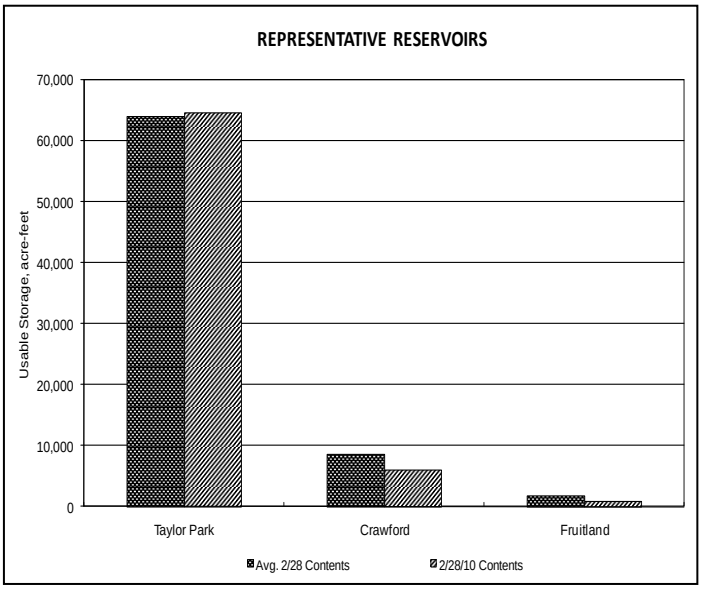
Irrigators are looking forward to full supply this year, following two good years in a row and what appears to be another good snowpack year. Carry-over storage in all Bureau of Reclamation reservoirs is very good and they are expected to fill again this year with little trouble. The forecast spring is encouraging. Yet, as explained in last month's report, history has shown that the forecast can change significantly during the January through April period. The Colorado River Basin Forecast Center is still forecasting the El Nino conditions present in the Pacific Ocean will most likely result in wetter than average late winter and early spring.

Administrative/Management Concerns

At the last Aspinall Unit operations meeting, the USBR forecasted that they could fill Blue Mesa Reservoir this year. However, due to drier than average conditions in the upper Gunnison Basin, flows from the Aspinall Unit were reduced by 200 cfs, from 800 cfs to 600 cfs. This change was achieved through two 100 cfs cuts occurring on Sunday, February 21st. The months of December, January, and February are critical to power generation at the Aspinall Unit.







Basinwide Conditions Assessment

The SWSI value for the month was -1.8. The Natural Resources Conservation Service reports that March 1 snowpack is 81% of normal. Flow at the gaging station Colorado River near Dotsero was 689 cfs, as compared to the long-term average of 967 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 119% of normal as of the end of February.

Outlook

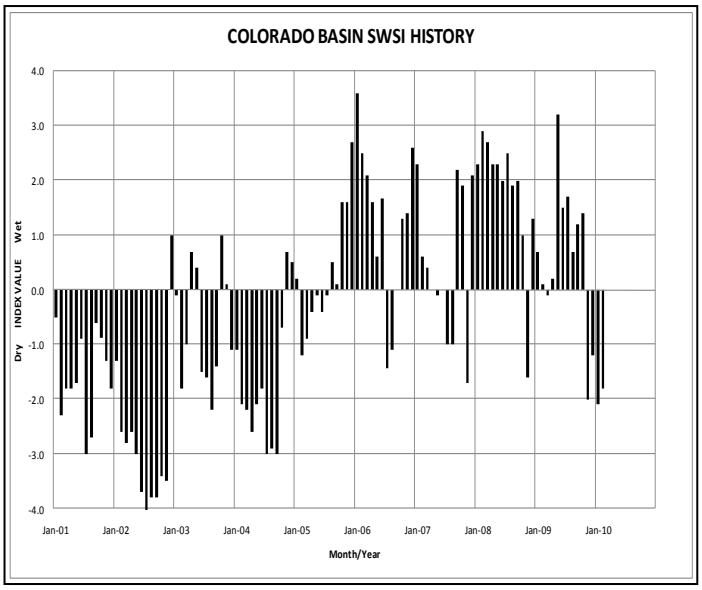
Colorado River flows will likely remain below average in March. Green Mountain Reservoir releases will remain below average at 125 cfs through March. Crystal and Roaring Fork River flows should also remain below average through March. Ruedi Reservoir releases will remain well below average at 70 cfs throughout the month of March as well. Snowpack in the Upper Colorado Basin increased somewhat from 74% to 81% (snow water equivalent) as of March 1, but remains significantly below average. Snowpack will likely decline, with long range forecasts predicting below average precipitation for the month of March.

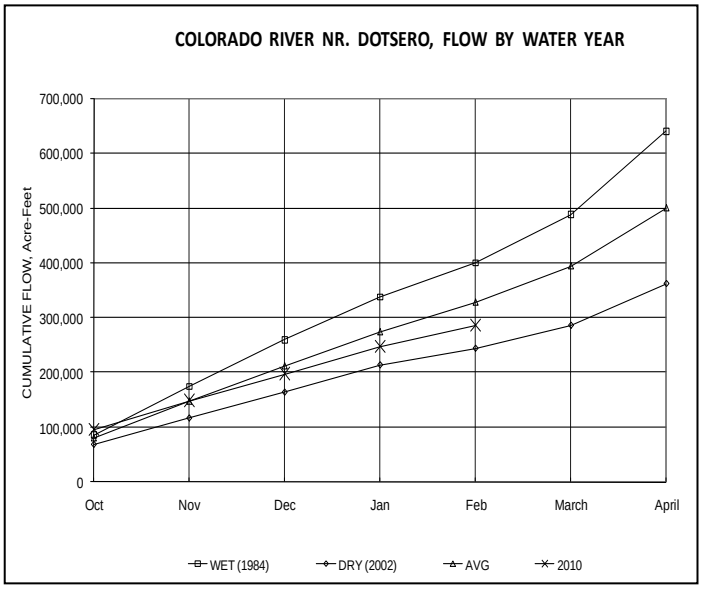
Administrative/Management Concerns

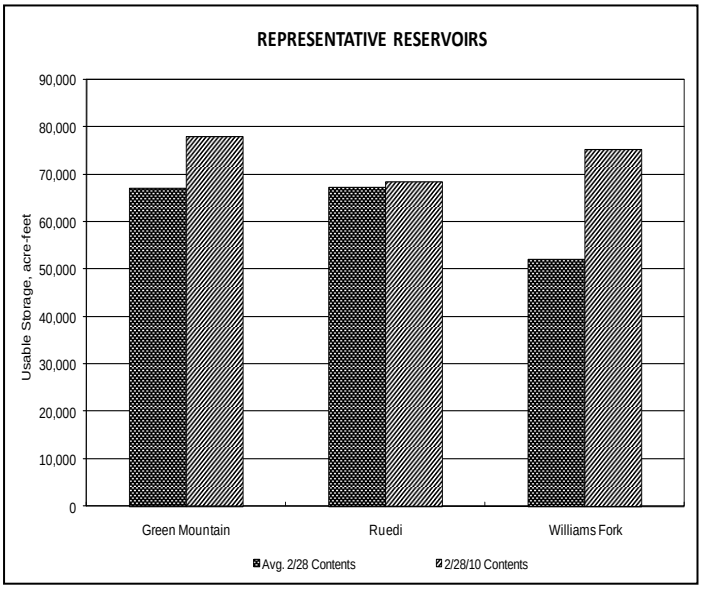
Green Mountain Reservoir releases were increased slightly to offset an accumulated owed-to-reservoir account, and then cut to 125 cfs in late February in accordance with the cancelled call on the Colorado by the Shoshone Power Plant. Shoshone Power Plant has run one turbine intermittently, and hopes to have the second on line in late March.

Public Use Impacts

The prospect of a significantly drier year for the upper Colorado River basin is a looming concern. A new campaign by the Colorado River Water Conservation District and the Northwest Colorado council of Governments hopes to urge the Front Range public to conserve water. The campaign will attempt to make the connection between the state's western rivers and urban water use. Denver Water anticipates a yearly supply shortfall of 34,000 acre-feet by 2030, estimating 16,000 acre-feet of the shortfall can be addressed through conservation.







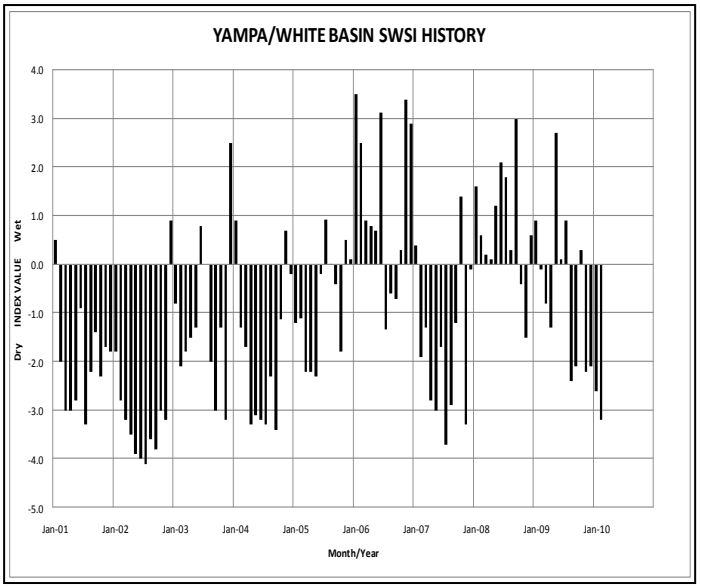
Basinwide Conditions Assessment

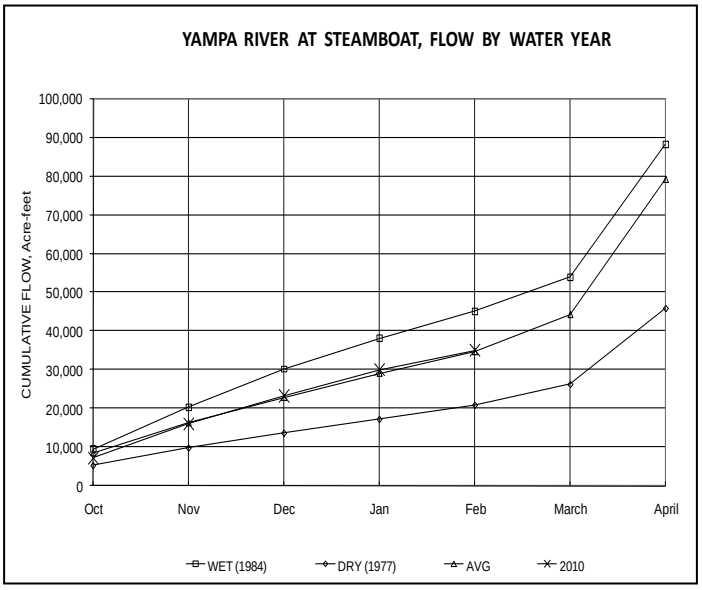
The SWSI value for the month was -3.2. Flow at the gaging station Yampa River at Steamboat was 90.3 cfs, as compared to the long-term average of 101 cfs. The snow water equivalent (SWE) as of February 28, 2010 was 75% of average for the North Platte River basin and 76% of average for the Yampa River basin and White River basin.

The dry trend continued in northern Colorado throughout February and precipitation was below average in the Yampa, White, and North Platte River basins for the fourth consecutive month. Precipitation for the month, as measured at the SNOTEL sites operated by the NRCS, was reported at approximately 80% of average for the Yampa/White River basin and 77% of average for the North Platte River basin. Precipitation for the combined Yampa, White, and North Platte River basins was reported at approximately 78% of average for the month of February and 82% of average for the water year to-date.

NRCS predicts below average spring and summer streamflows in the Yampa, White, and North Platte River basins. The latest runoff forecasts from the NRCS for the April through July period are 54% of average for the North Platte River near Northgate, 70% of average for the Yampa River near Maybell, 73% of average for the Little Snake River near Lily, and 74% of average for the White River near Meeker.

It is anticipated that many Division 6 stream gages, which had been closed for the winter season, will re-open in late March to early April.





Outlook

Fish Creek Reservoir storage level continued to decline in February and was reported at approximately 50% of capacity at the end of the month. Elkhead Creek Reservoir level rose slightly during the month and the reservoir was at approximately 78% of its' enlarged capacity. Yamcolo Reservoir storage level also increased and the reservoir was estimated at approximately 85% of capacity at the end of February. 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

According to NRCS data, snowpack in the combined Yampa, White, and North Platte River basins is the lowest of the major basins in the state and the second lowest for the area since 1987. February and annual precipitation totals were also the lowest of the state's major basins. Due to the low precipitation and snowpack levels, it is anticipated that many Division 6 streams will go under administration this irrigation year and water users will have to prepare for a low runoff season.

Public Use Impacts

Good ice-fishing is reported at area reservoirs. With warming temperatures, spring conditions are being reported at the ski area. All lifts and runs remain open.

Basinwide Conditions Assessment

The SWSI value for the month was +0.3. The Natural Resources Conservation Service (NRCS) reports that March 1 snowpack is 103% of normal. Flows at the Animas River at Durango averaged 177 cfs (86% of average). The flow at the Dolores River at Dolores was estimated to average 53 cfs (93% of average). The La Plata River at Hesperus averaged 4.4 cfs (60% of average).

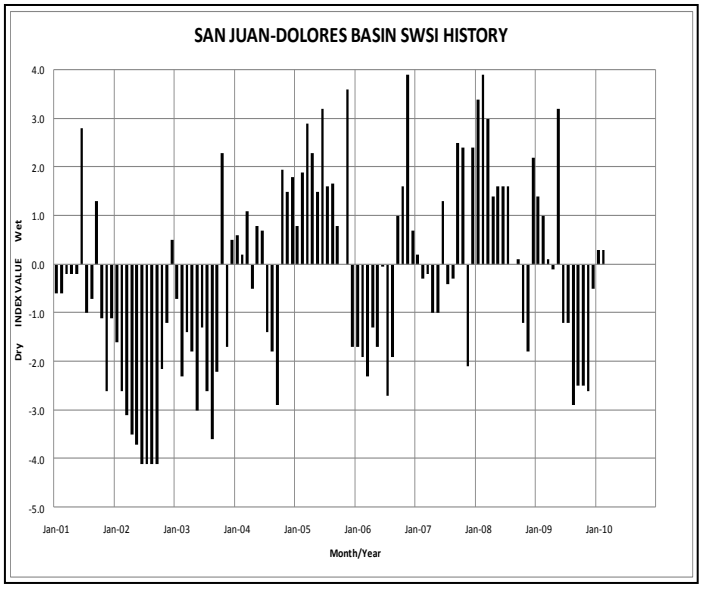
At the end of the month Vallecito Reservoir contained 46,630 acre-feet compared to its average content of 54,419 acre-feet (86% of average). McPhee Reservoir was up to 253,117 acre-feet compared to its average content of 259,183 (98% of average), while Lemon Reservoir was up to 9,600 acre-feet as compared to its average content of 20,442 acre-feet (47% of average).

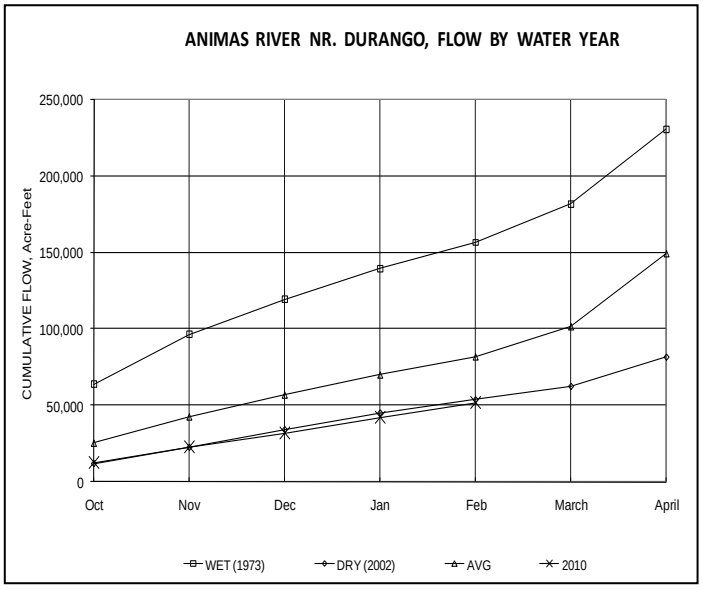
Outlook

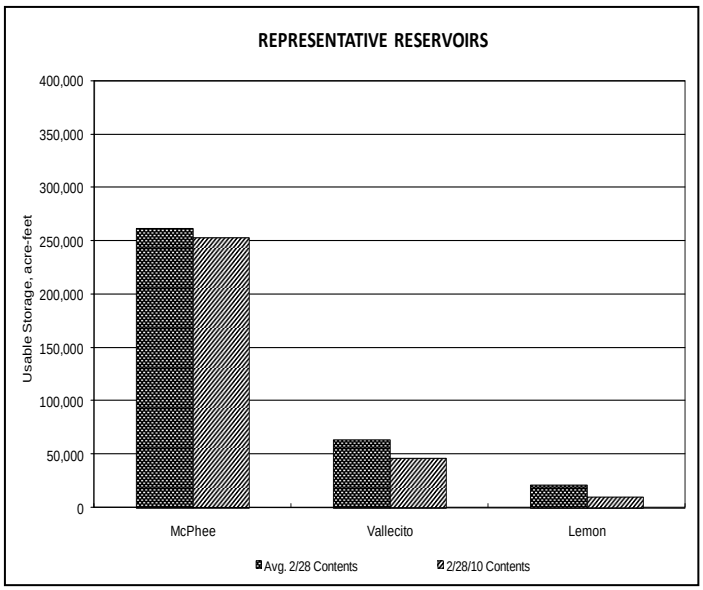
February temperatures remained below average for the month. On February 28th the NRCS SNOTEL sites are reporting a 108% snow-water equivalent within the basin.

Administrative/Management Concerns

Many of the oil and gas companies within the basin filed for water rights for the produced water that is removed during the extraction of gas from the coal-bed-methane wells. Gas companies along with Water Resources employees held public meetings to discuss the rules and regulations governing the use of produced water from coal-bed-methane wells.







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