COLORADO
WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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January 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 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 December range from a high value of 2.6 in the Rio Grande to a low value of 0.2 in the South Platte Basin. All of the basins experienced a gain from the previous month's values largely due to the amount of snow received by the State in the month of December.

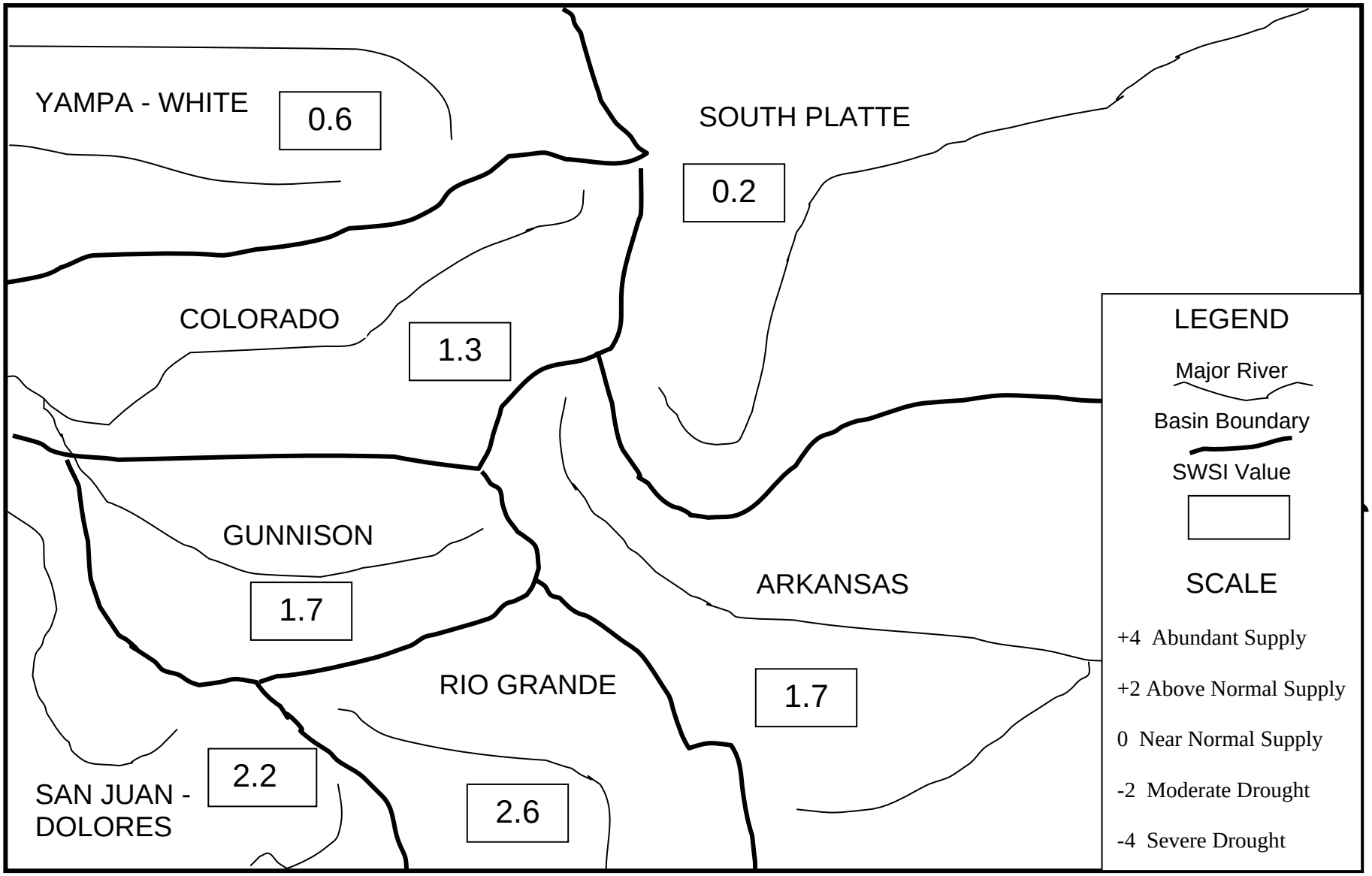
The following SWSI values were computed for each of the seven major basins for January 1, 2009, and reflect the conditions during the month of December.

Basin	January 1, 2009 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	+0.2	+1.3	+0.1
Arkansas	+1.7	+2.8	- 0.7
Rio Grande	+2.6	+4.6	- 0.2
Gunnison	+1.7	+4.3	- 0.7
Colorado	+1.3	+2.9	- 0.8
Yampa/White	+0.6	+2.1	+0.7
San Juan/Dolores	+2.2	+4.0	- 0.2

Scale

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

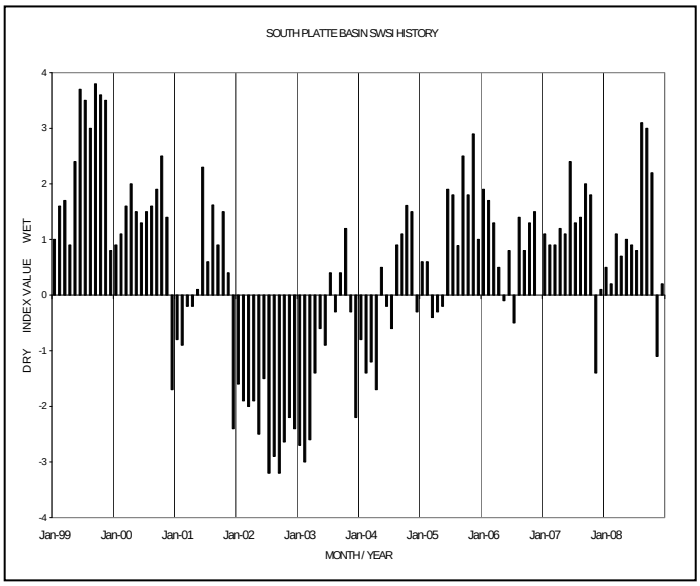
SURFACE WATER SUPPLY INDEX FOR COLORADO



January 1, 2009

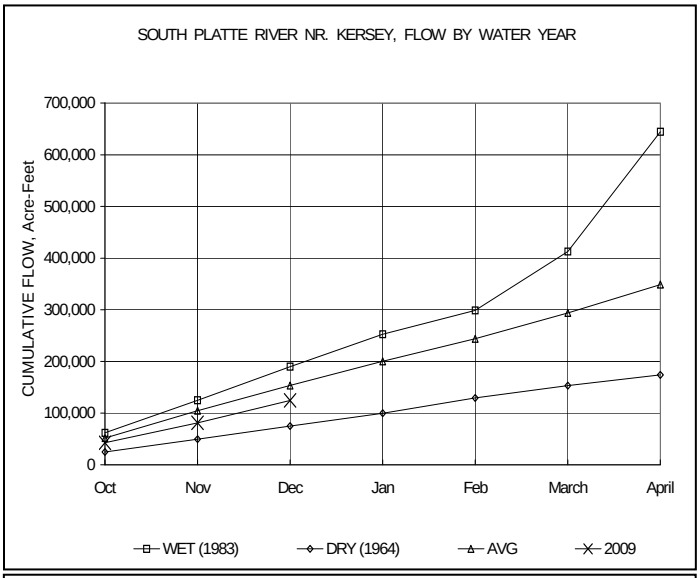
Basinwide Conditions Assessment

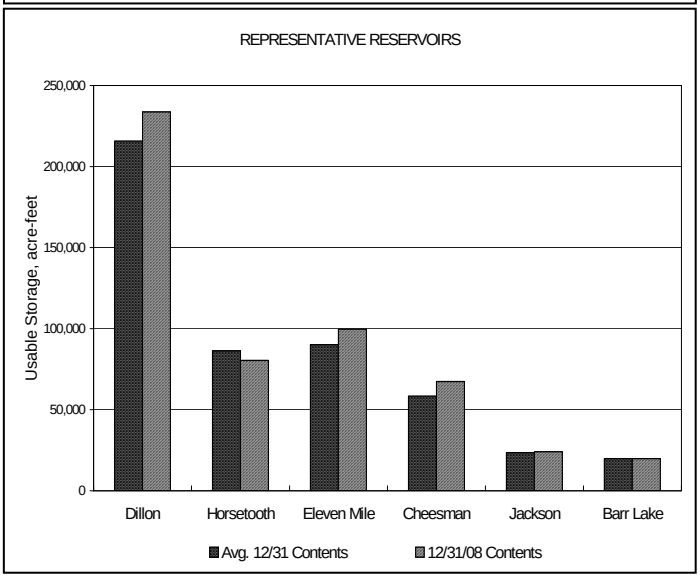
The SWSI value for the month was 0.2. Cumulative storage for the six reservoirs graphed on this page was 106% of normal as of the end of December. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 60.9% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 92.8% of capacity. The Natural Resources Conservation Service reports that January 1 snowpack is 97% of normal. Flow at the gaging station South Platte River near Kersey was 707 cfs, as compared to the long-term average of 683 cfs. Flow at the Colorado/Nebraska state line averaged 188 cfs.



Outlook

The main diversions continued to be to storage in December. Storage was limited during a portion of the month due the cold weather creating icing conditions. This is not unusual for December. Because of the limitations in storage, there were free conditions for the South Platte downstream of Denver for much of the month. Warmer conditions by the end of the month allowed for increased storage and once again brought about call conditions for the storage. Though lagging last years storage volume for this time of year somewhat, it still appears that the main reservoirs on the South Platte will fill this year unless we have significant icing limitations during the remainder of the winter or direct flow demand begins very early this spring. Most municipal suppliers should also have appreciable storage supplies going into next year. While the water supply situation in the South Platte basin is presently positive, conditions for next year will depend significantly on the snow the next few months and rain this spring.





Basinwide Conditions Assessment

The SWSI value for the month was 1.7. The Natural Resources Conservation Service reports that January 1 snowpack is 137% of normal. Flow at the gaging station Arkansas River near Portland was 404 cfs, as compared to the long-term average of 402 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 101% of normal as of the end of December.

Outlook

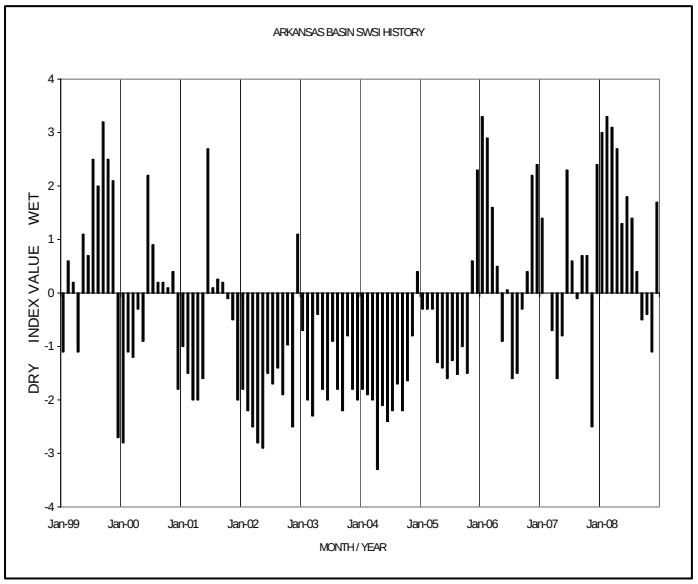
The Pueblo Winter Water system grand total was 62,798 acre-feet at the end of December representing a slight increase from last year's storage to date, which was 61,668 acre-feet. The previous five-year average for this period is 49,963 acre-feet and the average since 1990 for this period has been 62,376 acre-feet.

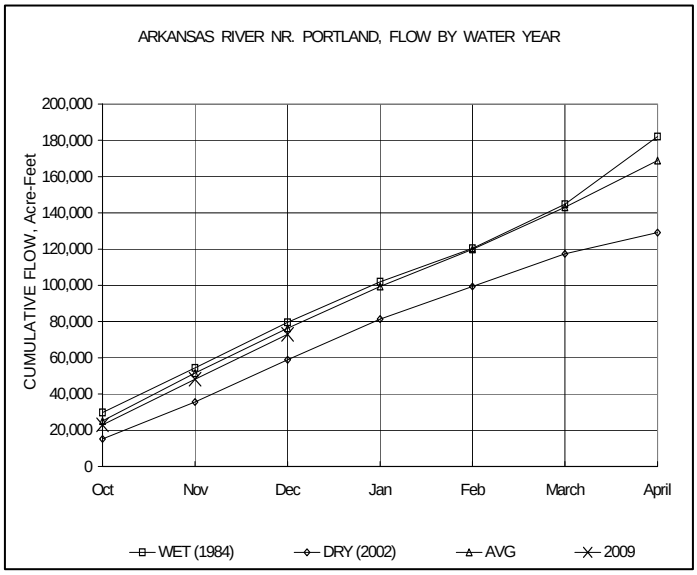
Conservation storage in John Martin Reservoir has been better than last year. Storage since November 1st has been 14,330 acre-feet while storage a year ago for the same time period was 9,253 acre-feet.

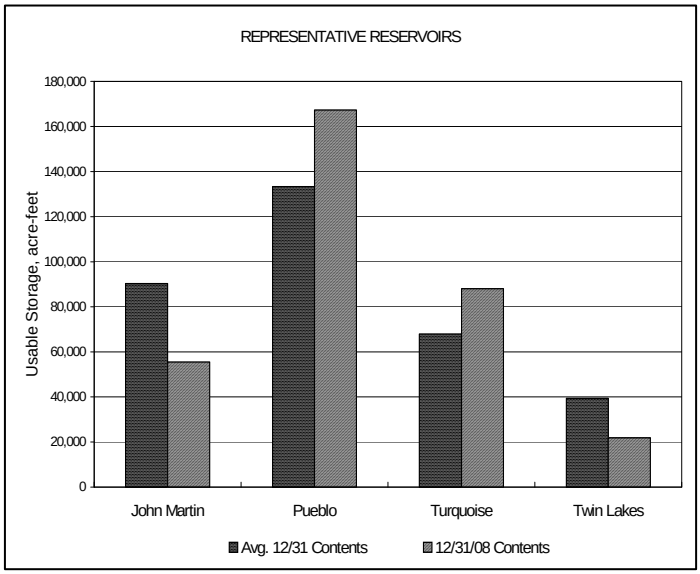
Administrative/Management Concerns

The Arkansas River Compact Administration meeting was held in Lamar on December 8th and 9th. One major reservoir accounting issue for John Martin Reservoir was resolved due to the efforts of a Special Engineering Committee established by ARCA. This issue dealt with transit losses on Kansas deliveries from John Martin Reservoir from 1996 through 2006. Colorado agreed to provide additional water to Kansas (a little over 3,000 acre-feet) to resolve the dispute and did so during 2008. Under the resolution for this issue Kansas agreed to accept revised Operation Secretary's Reports for the period 1994 through 2006 and this action was approved by ARCA at the 2008 meeting.

A significant amount of effort has occurred via an Advisory Committee established by State Engineer Dick Wolfe to develop Compact Compliance Rules related to improvements to surface irrigation systems in the Arkansas Basin (sprinkler/drip systems, canal and lateral lining, etc.). Although the proposed rules have spawned a fair amount of dissent from surface irrigators, the Advisory Committee process seems to be resolving some of the disputes and development of the rules should help avoid a future lawsuit by Kansas.



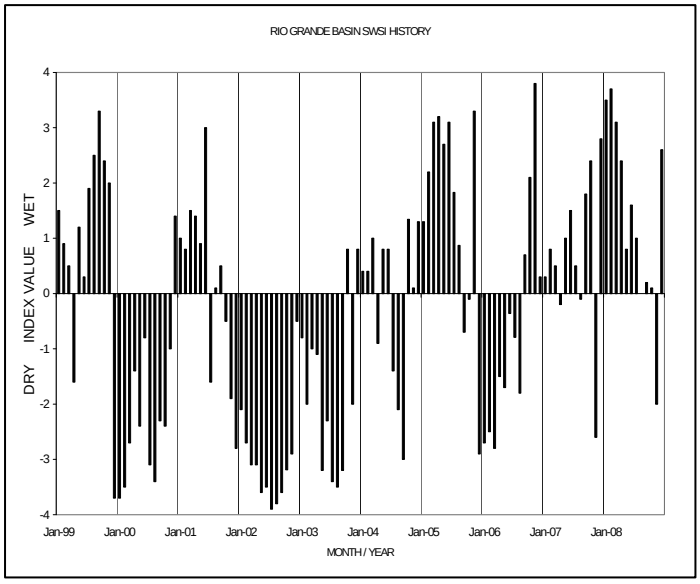


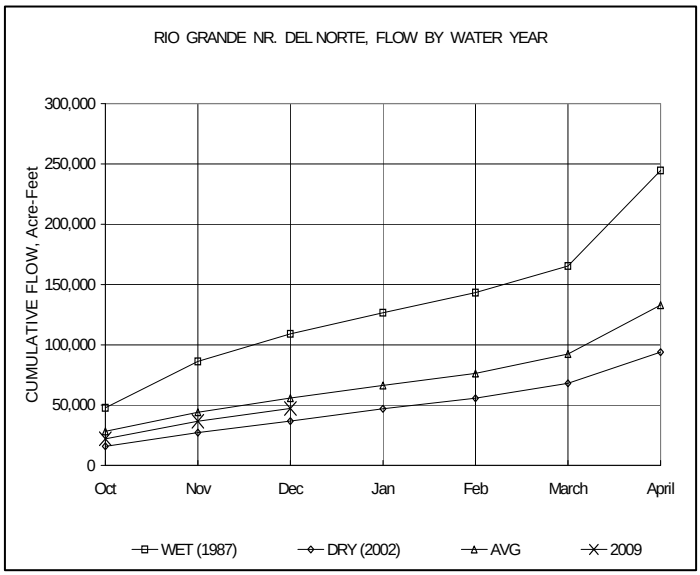


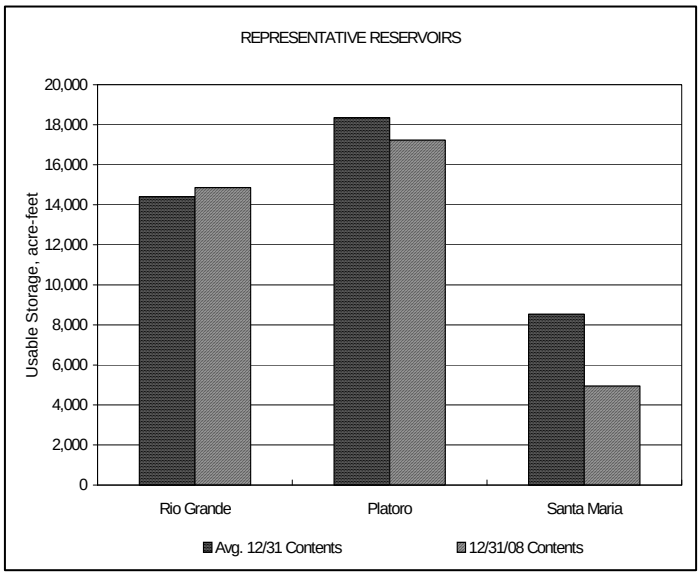
Basinwide Conditions Assessment

The SWSI value for the month was 2.6. The Natural Resources Conservation Service reports that January 1 snowpack is 140% of normal. Flow at the gaging station Rio Grande near Del Norte averaged 173 cfs (89% of normal) during December. The Conejos River near Mogote had a mean flow of 41 cfs (79% of normal). Hydrologically speaking, 2008 was a very unusual year. Near record snowfall in January and February set the tone for a massive run-off. However, poor snowfall in March and April reduced the actual runoff significantly. The Conejos system produced about 120% compared to long term averages and the Rio Grande about 110%. For the majority of the Division 3 streams, runoff was above normal during April, May and June, without damaging floods. But creeks at the northern end of the San Luis Valley, such as Carnero, Saguache, and Kerber did not fare as well during 2008 and received about 75% of normal annual volume. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 90% of normal as of the end of December.

Alamosa received 0.48 inches of precipitation during December, 0.15 inches above normal. Temperatures ranged from -11 degrees to 57 degrees in Alamosa where the average monthly temperature was 19.6 degrees, about 2 degrees above normal. For the 2008 year, Alamosa had below average precipitation of 5.48 inches (-1.77 inches) and a colder than average temperature that was heavily skewed by the bitter cold of January and February. July through December 2008 temperatures were warmer than normal.







Outlook

Stream flow in the basin should remain near average for the next few months.

Administrative/Management Concerns

Colorado will slightly exceed the delivery obligation to New Mexico and Texas on the Rio Grande Compact for 2008 and have about 10,000 acre-feet of delivery credit going into 2009. Approximately 710,000 acre-feet was indexed at the Rio Grande near Del Norte gaging station during 2008. Stream flow in an average year totals 630,000 acre-feet at that site. Indexed flow on the Conejos River near Mogote totaled 260,000 acre-feet compared to an average of 220,000 acre-feet. The Los Pinos and San Antonio Rivers added another 135,000 acre-feet to the index.

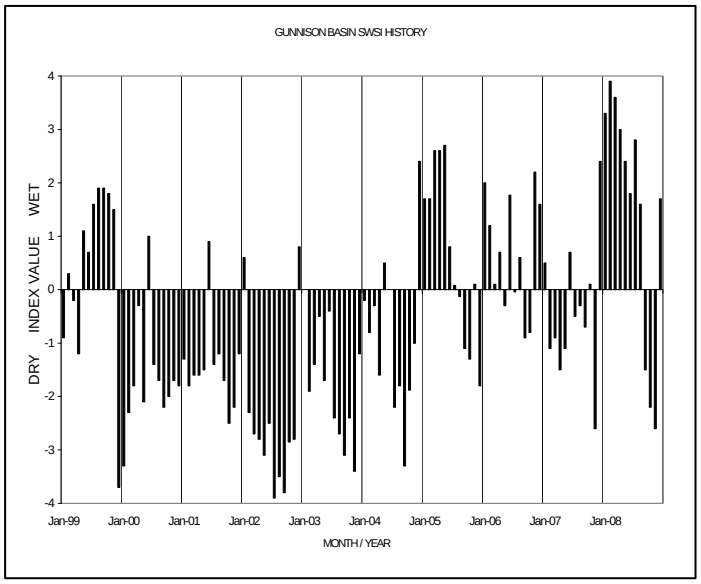
Closed Basin Project delivery to the Rio Grande totaled 13,000 acre-feet for 2008. All Project canal deliveries met water quality standards.

Public Use Impacts

Following the example set one year ago, the December 1st snowpack in the upper Rio Grande basin was terrible – even prompting comparisons to 2001/2002. But substantial snowstorms since then have the basin at over 130% of normal; another remarkable turnaround.

Basinwide Conditions Assessment

The SWSI value for the month was 1.7. The Natural Resources Conservation Service reports that January 1 snowpack is 127% of normal. Flow at the gaging station Uncompahgre River near Ridgway was 53.9 cfs, as compared to the long-term average of 53.6 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 110% of normal as of the end of December.



Outlook

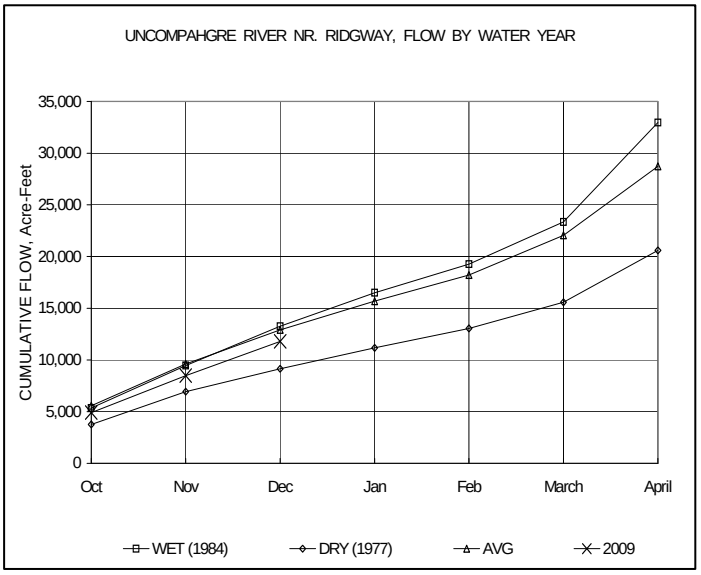
October and November were dry months in the Gunnison Basin with temperatures well above normal resulting in a snowpack measurement for the Gunnison River Basin at 61 percent of average as of December 1, 2008. By December 31st, the snowpack increased to 129 percent of average. The trend is continuing, for the present at least. With good reservoir carry-over this year, the basin is positioned to be in great shape for the 2009 irrigation season.

Administrative/Management Concerns

We are pleased to report Judge J. Steven Patrick entered an order on December 31, 2008, approving the decree which quantifies the federal reserved water right in the Black Canyon of the Gunnison National Park.

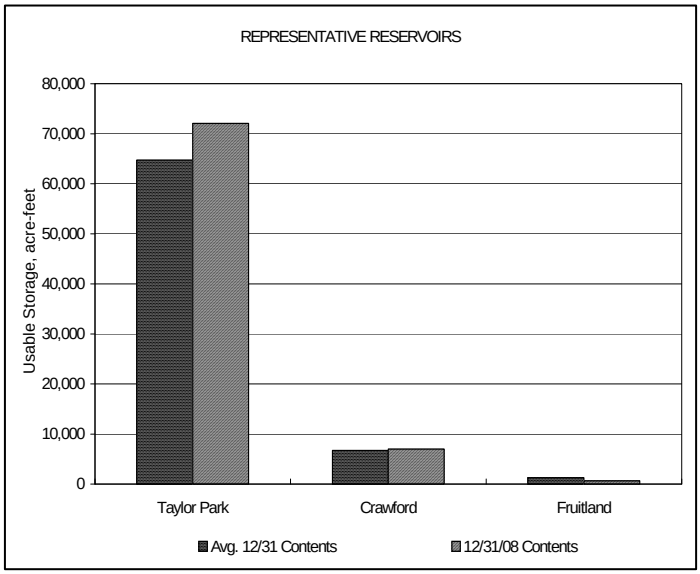
The 2001 application by the federal government to quantify the federal reserved water right for the Black Canyon of the Gunnison National Park was followed by the most statements of opposition against a water court filing in Colorado Water Court history. Even so, a successful outcome was achieved through over two years of negotiation by a composite group of water users, environmental coalitions, and government officials. The work secures a legal water right that protects a national treasure and simultaneously provides certainty to Colorado citizens that depend upon our water resources. Thankfully, the successful negotiations averted a potentially expensive water court trial, scheduled to begin June of 2009.

The purpose of the federal reserved water right is to provide a legal quantification of the streamflows deemed necessary to preserve the spectacular gorges of the Black Canyon and the additional features of scenic, scientific and educational interest in perspective of the all other existing water rights in the Gunnison River system.



Public Use Impacts

Telluride, Crested Butte, and Powderhorn ski resorts are receiving a lot of attention in the news with winter sport enthusiasts taking advantage of ample snowfalls in recent weeks. And, the colder than normal temperatures over the last month resulted in perfect conditions for the ice climbing competition at the very popular annual ice festival, held in Ouray, January 9th through the 11th.



Basinwide Conditions Assessment

The SWSI value for the month was 1.3. The Natural Resources Conservation Service reports that January 1 snowpack is 125% of normal. Flow at the gaging station Colorado River near Dotsero was 1155 cfs, as compared to the long-term average of 1050 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 101% of normal as of the end of December.

Outlook

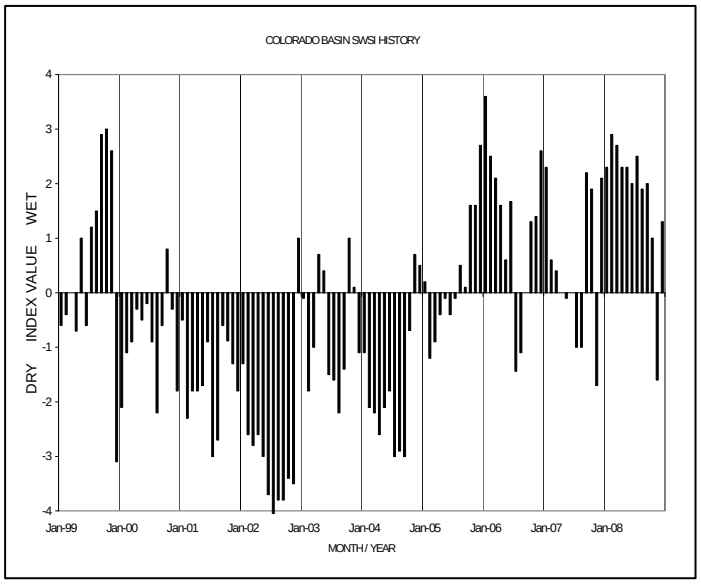
Heavy precipitation in the second half of December raised Upper Colorado Basin precipitation to a basin wide snow water equivalent average of 127 percent as of January 1st, with nearly all SNOTEL sites registering well over 100 percent. Colorado River flows at Glenwood Springs remained average over the month of December despite above average Blue, Eagle, and upper Fryingpan River flows.

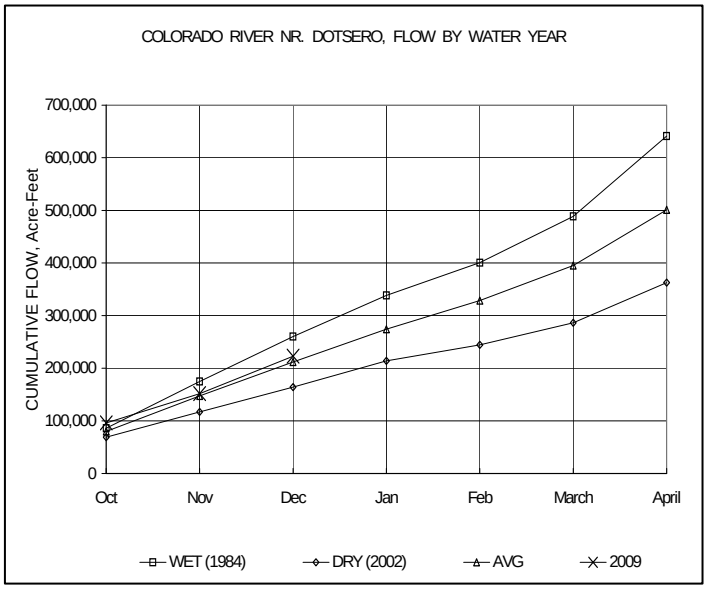
Administrative/Management Concerns

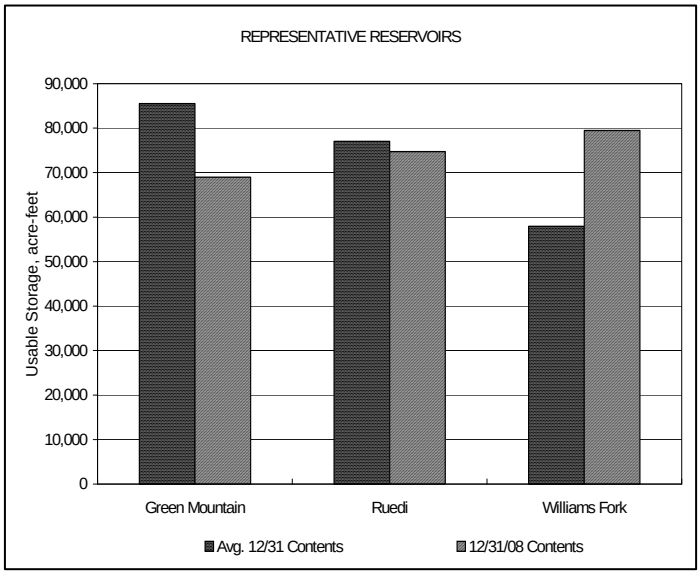
Green Mountain Reservoir inflow and CBT Project depletions increased considerably resulting in increased reservoir releases through December 21st. Decreased inflow and CBT Project depletions reversed this trend to decrease releases through the end of the month. The Shoshone Power Plant currently has a call in place with the plant continuing to operate without equipment difficulties experienced last fall.

Public Use Impacts

Shell Oil has filed for a 375 cfs industrial water right on the Yampa River to fill a 45,000 acre-foot reservoir in Moffat County. The water right would not impact agricultural rights and would fill the proposed reservoir during spring runoff. Although entering the case as an opposer, the Colorado Water Conservation District is interested in cooperating with Shell Oil to accommodate municipal, environmental, and recreational uses for the proposed reservoir. Competition will likely arise from the Northern Water Conservancy District which seeks to potentially divert Yampa River water to the Front Range, and other Front Range interests claiming Yampa River water is subject to use by Colorado under the compact governing the Colorado River and its tributaries.





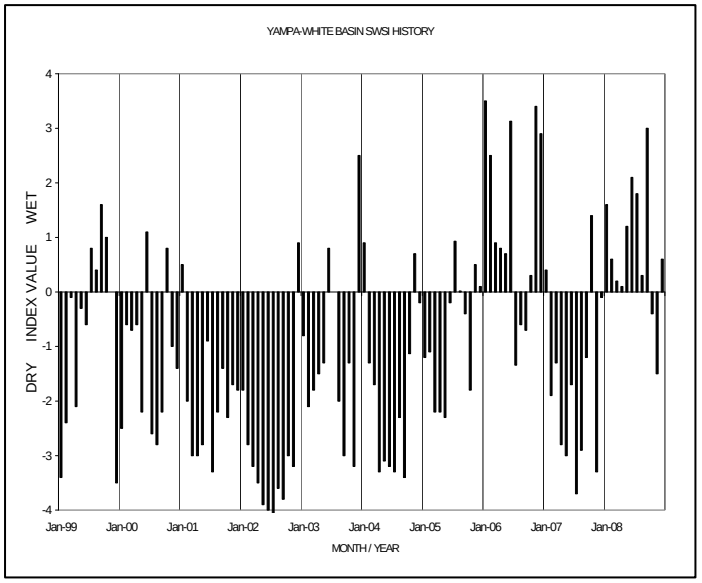


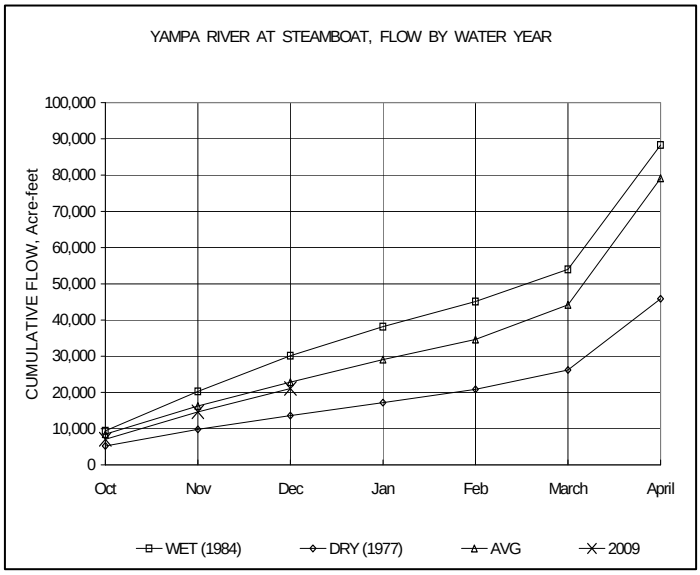
Basinwide Conditions Assessment

The SWSI value for the month was 0.6 Flow at the gaging station Yampa River at Steamboat was 105 cfs, as compared to the long-term average of 107 cfs. Following a relatively dry November, precipitation increased in December and above average precipitation was reported 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 122% of average for the Yampa/White River basin and 112% of average for the North Platte River basin. Precipitation for the combined Yampa, White, and North Platte River basins was reported at approximately 120% of average for the month of December and 94% of average for the water year to-date.

The snow water equivalent (SWE) as of December 31, 2008 for the Yampa and White River basins was 96% of average and for the Laramie and North Platte River basins was 91% of average. For the individual Division 6 basins, the snowpack at the end of the month was 90% of average for the North Platte River basin, 92% of average for the Yampa River basin, and 110% of average for the White River basin.

NRCS predicts near average to below average spring and summer streamflows in the Yampa and White River basins and below average streamflows in the North Platte River basin. The latest runoff forecasts from the NRCS for the April through July period are 72% of average for the North Platte River at Northgate, 92% of average for the Yampa River near Maybell, 96% of average for the Little Snake River near Lily, and 100% of average for the White River near Meeker. Due to the cold night temperatures, many of the Division 6 stream gages are either closed for the winter season or currently ice-affected.





Outlook

Fish Creek Reservoir storage level decreased slightly in December and was reported at approximately 64% of capacity at the end of the month. Elkhead Creek Reservoir level increased slightly during the month to approximately 76% of its' enlarged capacity. Yamcolo Reservoir storage level also increased in December and the reservoir was at approximately 79% 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, recreation, and fish recovery releases.

Administrative/Management Concerns

The second year of the fish recovery release from Elkhead Creek Reservoir was completed successfully and data collected during the release are being compiled and reviewed by participating agencies. The program was directed by the Colorado River District, on behalf of the Recovery Program and Division 6 is responsible for protecting this water through the Yampa River critical habitat reach (from Craig to the confluence with the Green River at Echo Park).

Basinwide Conditions Assessment

The SWSI value for the month was 2.2. The Natural Resources Conservation Service reports that January 1 snowpack is 135% of normal. Flows at the Animas River at Durango averaged 187 cfs (83% of average). The Dolores River at Dolores was estimated to have averaged 50 cfs (86% of average). The La Plata River at Hesperus averaged 6.1 cfs (74% of average). Precipitation in Durango was 4.15 inches for December which is well above the 30-year average of 1.63 inches. Precipitation to date in Durango, for the water year, is 7.30 inches which is well above the average of 5.06 inches. Temperatures were near normal for the month. Durango was 1.8° below its 30-year average high and 1.4° below the 30-year average low.

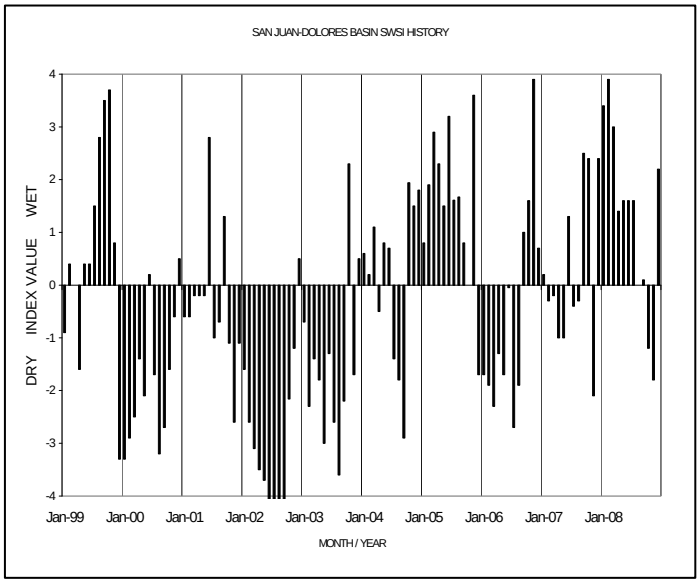
At the end of the month Vallecito Reservoir contained 71,110 acre-feet compared to its normal contents of 53,107 acre-feet (134% of normal). McPhee Reservoir was up to 278,995 acre-feet compared to its normal contents of 257,370 acre-feet (108% of normal), while Lemon Reservoir was up to 18,330 acre-feet as compared to its normal content of 19,638 acre-feet (93% of normal).

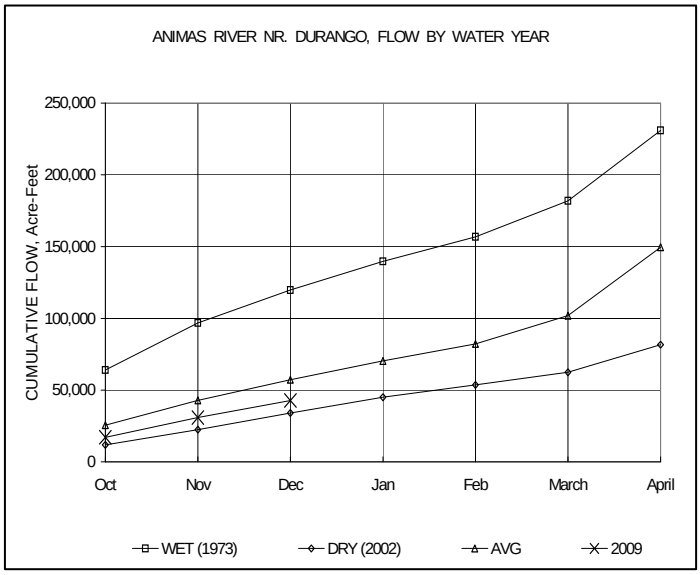
Outlook

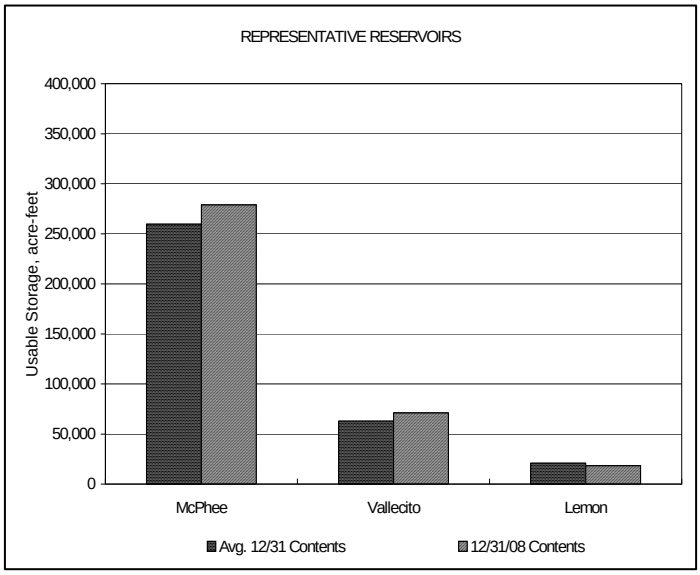
Several major winter storms brought much needed moisture to the region in December. At the beginning of December the NRCS was reporting a snow-water-equivalent for the San Miguel, Dolores, Animas and San Juan River basins at 49% of average. By the end of December the value had jumped to 136% of average which is near the value of 133% at the end of December last year.

Administrative/Management Concerns

The USBR is planning to begin filling Ridges Basin Reservoir in the spring of 2009. The reservoir is expected to take up to two years to fill depending on available water supplies. The USBR has also begun the search for an entity to operate the facility.







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