
COLORADO

WATER SUPPLY CONDITIONS UPDATE

FROM THE OFFICE OF THE STATE ENGINEER: COLORADO DIVISION OF WATER RESOURCES
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November 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.

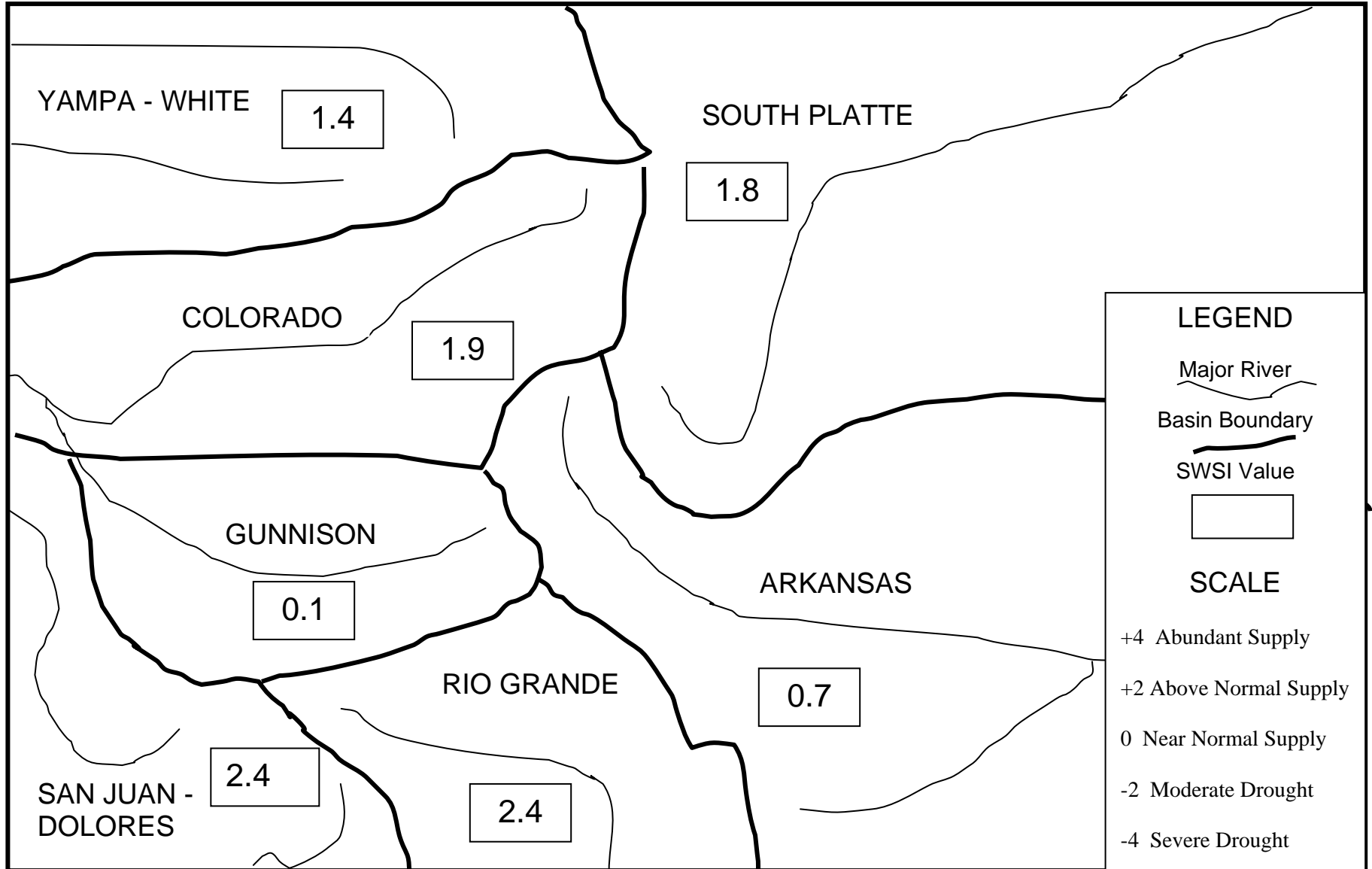
The statewide SWSI values for the month range from a high value of 2.4 in the Rio Grande and San Juan/Dolores Basins to a low value of 0.1 in the Gunnison Basin. Three of the basins (Rio Grande, Gunnison, and Yampa/White) experienced a gain from the previous month's values. Three of the basins (South Platte, Colorado, and San Juan/Dolores) experienced a loss from the previous month's values. One of the basins (Arkansas) remained unchanged from the previous month's values.

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

<u>Basin</u>	<u>November 1, 2007 SWSI Value</u>	<u>Change From Previous Month</u>	<u>Change From Previous Year</u>
South Platte	+1.8	- 0.2	+0.5
Arkansas	+0.7	+0.0	+0.3
Rio Grande	+2.4	+0.6	+0.3
Gunnison	+0.1	+0.8	+0.9
Colorado	+1.9	- 0.3	+0.6
Yampa/White	+1.4	+2.6	+1.1
San Juan/Dolores	+2.4	- 0.1	+0.8

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



NOVEMBER 1, 2007

Basinwide Conditions Assessment

The SWSI value for the month was 1.8. Reservoir storage in Dillon, Horsetooth, Eleven Mile, Cheesman, Jackson, and Barr Lake, the major component in this basin in computing the SWSI value, was 107% of normal as of the end of October. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 34% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 90% of capacity. Flow at the gaging station South Platte River near Kersey was 795 cfs, as compared to the long-term average of 656 cfs. Flow at the Colorado/Nebraska state line averaged 118 cfs.

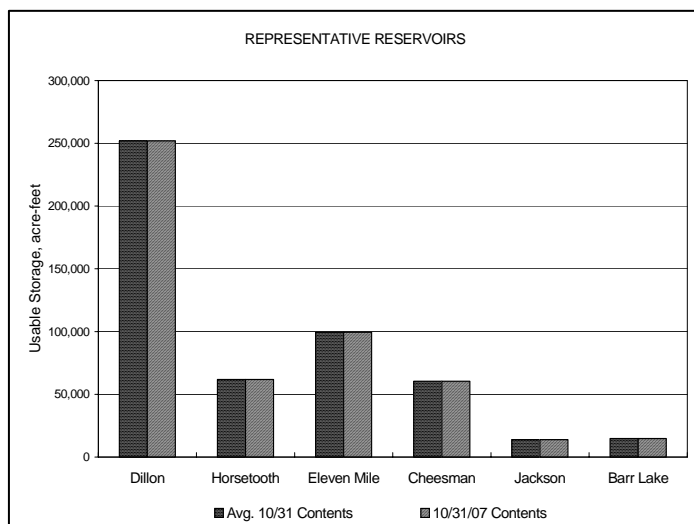
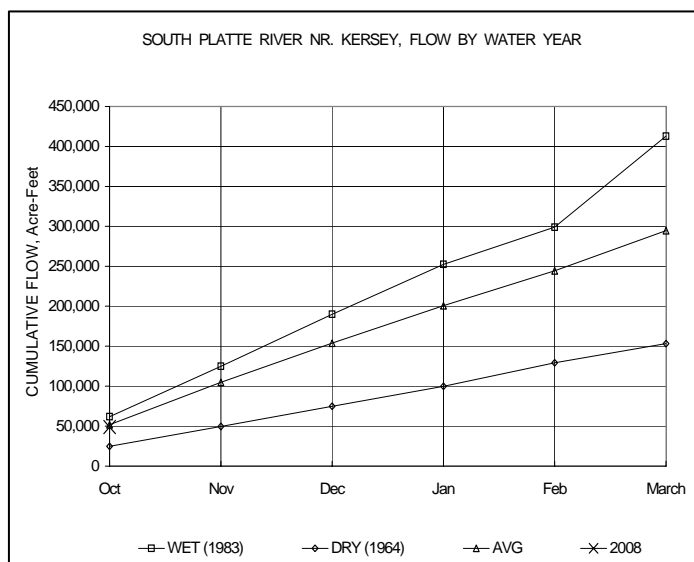
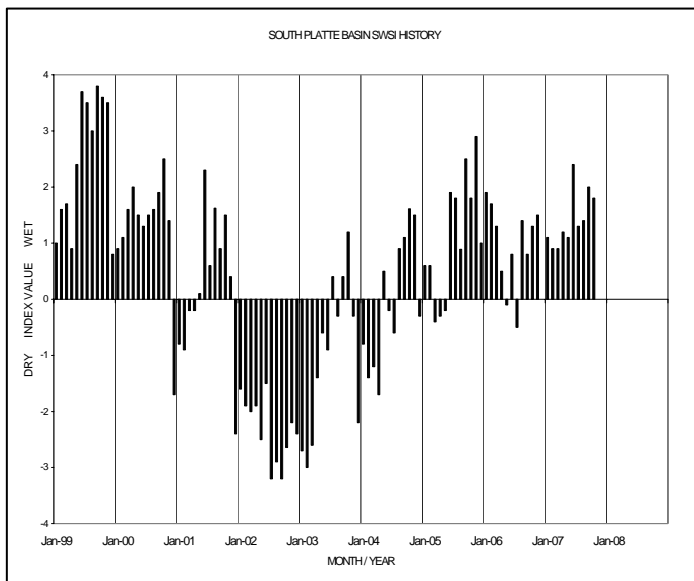
Outlook

River conditions remained above average levels in October for much of the month due to a couple of precipitation events. The main use of water continued for irrigation and municipal purposes during the month. As the month proceeded, the call on the river for water first changed from irrigation to the refill of storage rights and eventually to recharge use as the demand for irrigation water receded.

Reservoir levels continued to be in good condition, especially for Denver area municipalities, as the irrigation season ended. This provides a good start for next year's water supplies as the main diversion for the next several months will be for storage.

Administrative/Management Concerns

Of note, the Water Court ruled on the Central Colorado Well Augmentation Subdistrict augmentation plan, 03CW99. This case involves the operation of 215 wells that had been curtailed because of the lack of an augmentation plan. The Court's October 18, 2007 ruling contains detailed findings concerning issues that were disputed during a 30 day trial held between February, 2007 and May, 2007. The ruling requires Central to submit a proposed decree in conformance with its ruling within 30 days and then allows for objectors to reply if necessary. It is unclear if the ruling will allow Central wells to pump next year and to what level because of the rulings complexity and the uncertainty of future hydrologic conditions.



Basinwide Conditions Assessment

The SWSI value for the month was 0.7. Flow at the gaging station Arkansas River near Portland was 434 cfs, as compared to the long-term average of 409 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 103% of normal as of the end of October.

Outlook

The river call for October began at the Lamar 11/4/1886 call and ended the month at the Amity #1 2/21/1887 call. The period seemed to be relatively hot and dry for the season and many ditches still called for their full rights to finish crops or start crops such as winter wheat.

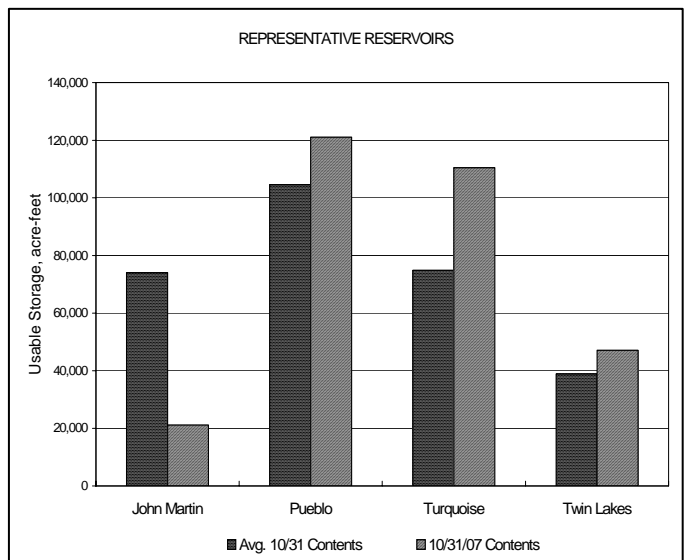
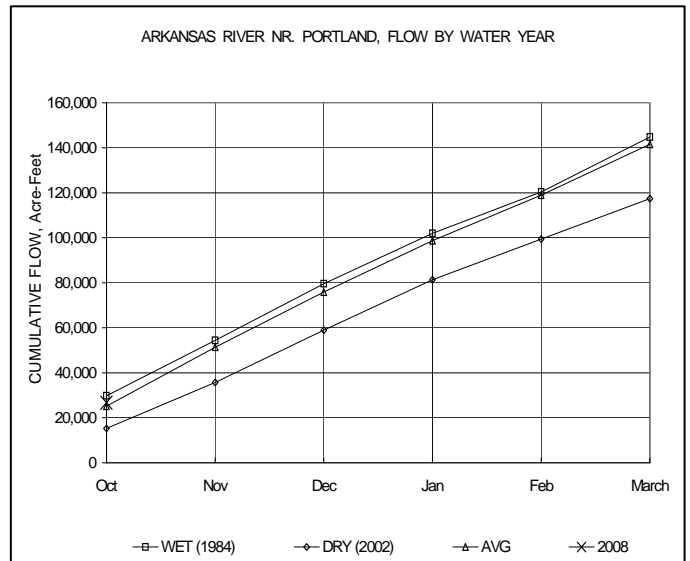
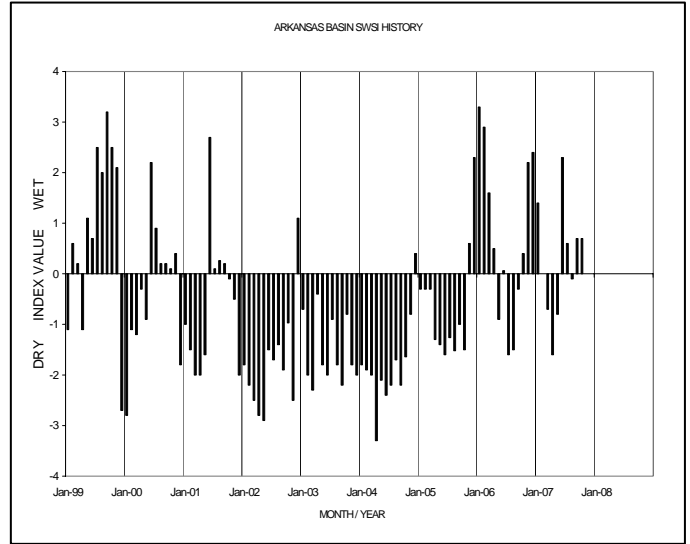
A meeting of the Winter Water Board of Directors was held in La Junta on October 29, 2007. Planning for the upcoming storage season which runs from November 15, 2007 through March 14, 2008 was the topic at this meeting. During this storage season it is anticipated that storage in Pueblo Reservoir will cause an account spill for If & When storage accounts held by various entities causing some difficult management decisions to be made by water managers.

During October a delivery by Colorado Division of Wildlife was made to the permanent fisheries pool in John Martin Reservoir which added 4,500 acre-feet to the permanent pool to bring the total up to approximately 7200 acre-feet at the end of October.

Winter Compact storage in John Martin Reservoir began at midnight on October 31, 2007.

Administrative/Management Concerns

Meetings were held between Division of Wildlife representatives and Division of Water Resources representatives to discuss options for ensuring that flows on the Arkansas River through the City of Pueblo did not fall to low levels that would harm the recently enhanced fishery through this reach. In recent winters it has become necessary to reduce flows through Pueblo to meet Winter Water Storage requirements for short periods of time that caused concern about the survival of the developed fishery. Several possible solutions were discussed and will be further studied through the winter storage season.



Basinwide Conditions Assessment

The SWSI value for the month was 2.4. Flow at the gaging station Rio Grande near Del Norte averaged 588 cfs (121% of normal). The Conejos River near Mogote had a mean flow of 210 cfs (181% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 90% of normal as of the end of October.

The above-average flow in the Conejos River was again due to extensive storage releases from Platoro Reservoir for downstream irrigation need.

Outlook

Area streams were near or above average flow during October, a reflection of good precipitation during the summer and early fall. Soil moisture conditions in the basin remain in good condition.

The current snowpack in the eastern San Juan and Sangre de Cristo mountains does not look good, however. It is still early in the snowfall season, but water officials, farmers and ranchers are concerned about the poor start.

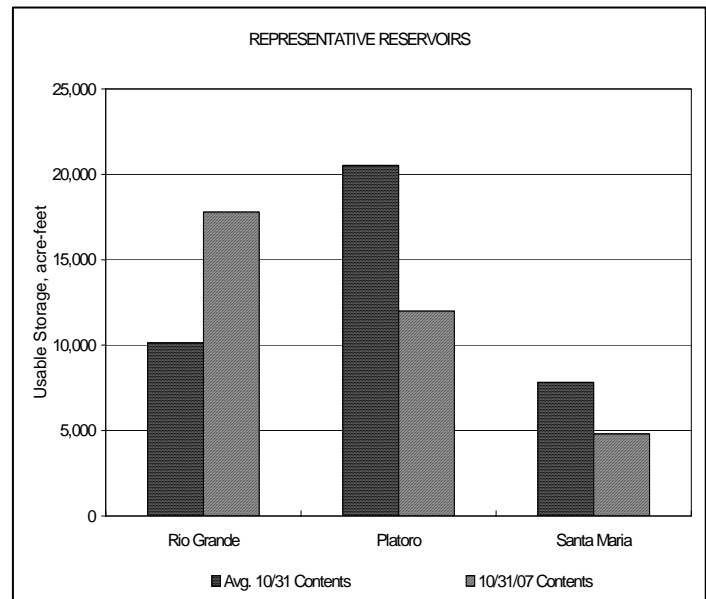
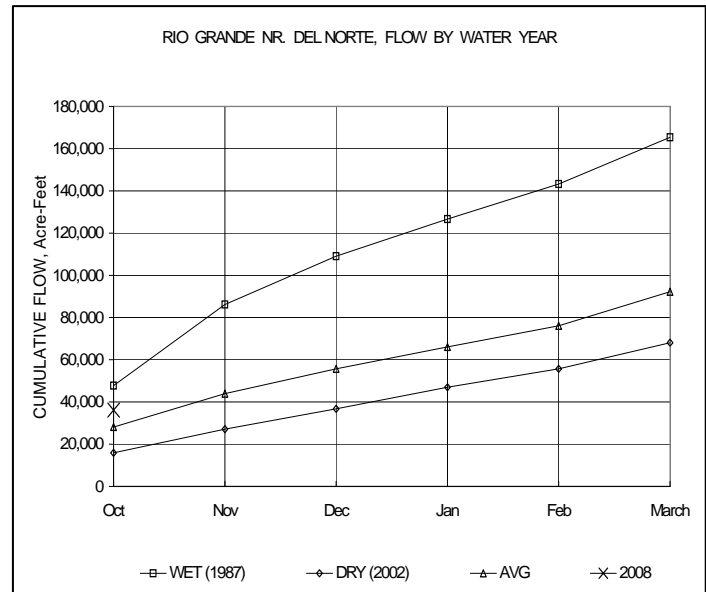
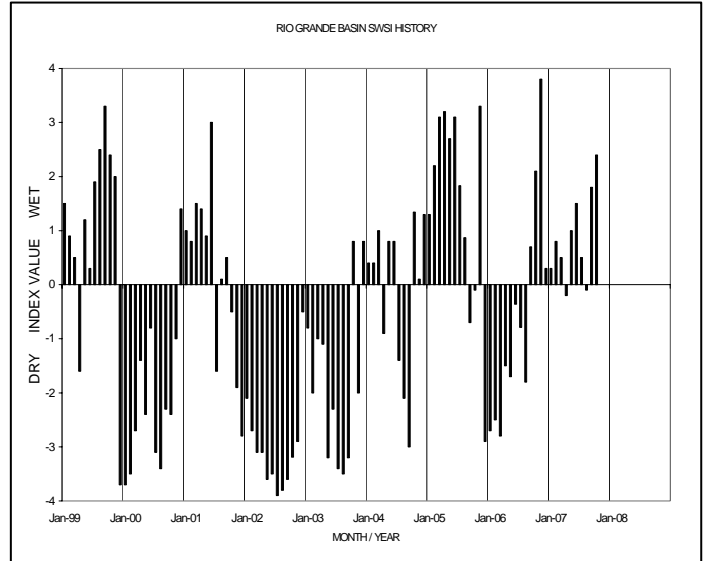
Administrative/Management Concerns

As of November 1, all ditches in the Rio Grande and Conejos River systems shut off in order to assure Colorado meets its delivery requirement under the Rio Grande Compact this year. Reservoirs went into priority storage as of November 1 as well.

The first cycle of large capacity well production reporting is in full swing. Reporting forms have been mailed out to well users. All owners of wells that are subject to the well measurement rules are asked to submit flow meter readings for the 2007 season to the Division office by December 1. Please contact the office at (719) 589-6683 for assistance with this requirement.

Public Use Impacts

Weather conditions during October were extremely mild and pleasant. "The Land of Cool Sunshine", as the San Luis Valley is often referred to, experienced few clouds, low wind and seasonal temperatures after unsettled weather systems passed through during late September. The end of harvest was assisted by the clement weather. Commodity prices for most crops grown in the Valley are relatively high.



Basinwide Conditions Assessment

The SWSI value for the month was 0.1. Flow at the gaging station Uncompahgre River near Ridgway was 122 cfs, as compared to the long-term average of 90 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 112% of normal as of the end of October.

Outlook

The month of October has been very dry and the temperatures above normal. These factors have caused the flows to decline drastically, however in most area the flows are still above average.

Administrative/Management Concerns

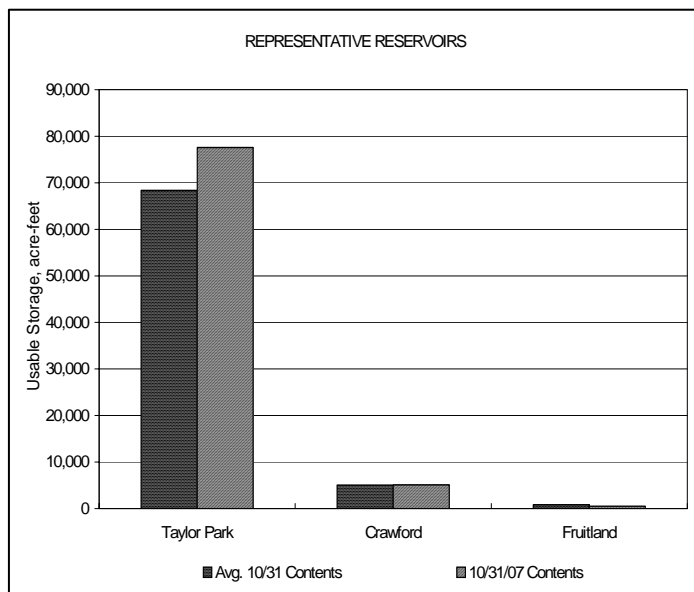
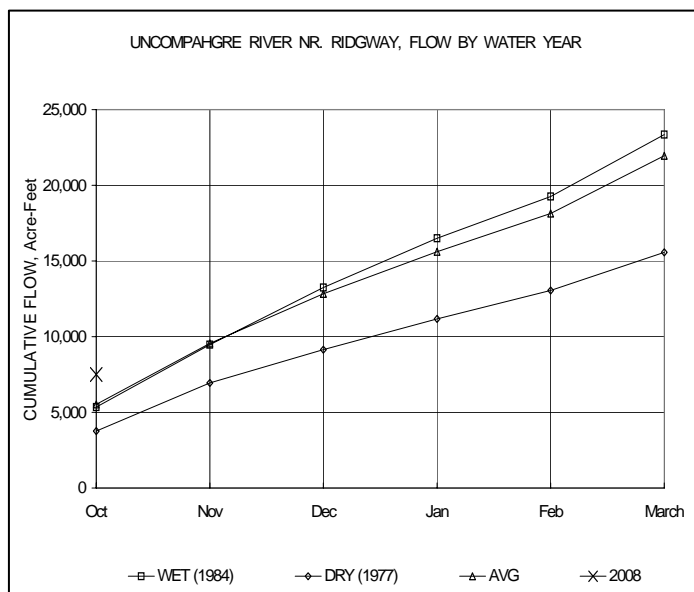
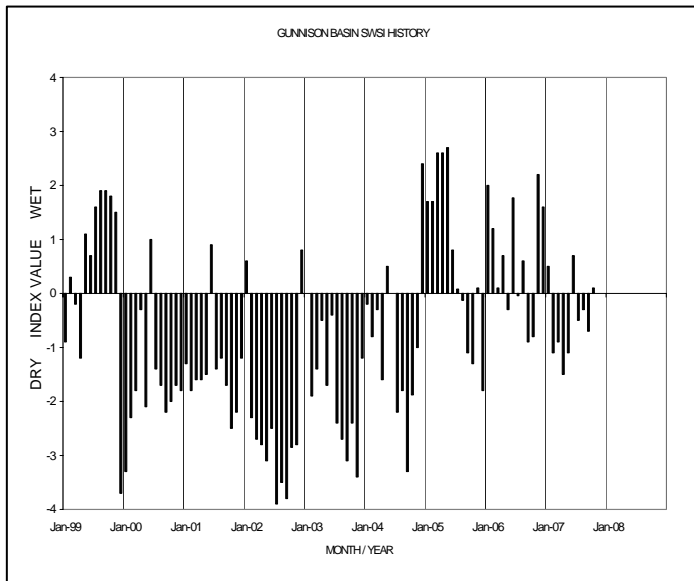
The base river flows are going into the winter above average, except for the Gunnison River that is below average.

Reservoir storage is still above normal in most of the basin except for the Grand Mesa. Because the summer flows have been more than normal for most of the summer season, the releases out of the Aspinall Unit have been increased to produce more power in the critical months of November and December and to meet the target elevation of 7490 feet (581,100 acre-feet). The target elevation is to prevent icing effects above the reservoir that can clog the river channel and create ice flows on private property.

In the Grand Mesa area, there has been a large demand for reservoir water this irrigation season. The reservoirs will go into the winter season with their normal 15% carryover storage.

Public Use Impacts

The dry October has not created a good start to the winter snowpack season, and is making some people nervous. All agree that it is time for a good snow year that will produce above-normal runoff.



Basinwide Conditions Assessment

The SWSI value for the month was 1.9. Flow at the gaging station Colorado River near Dotsero was 1379 cfs, as compared to the long-term average of 1299 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 105% of normal as of the end of October.

Outlook

The 2008 water year began with Upper Colorado River Basin precipitation levels ranging from 75 to 361 percent of average. Nearly all the gaging sites registered well above 100 percent of average, with the basin-wide precipitation currently 122 percent of average.

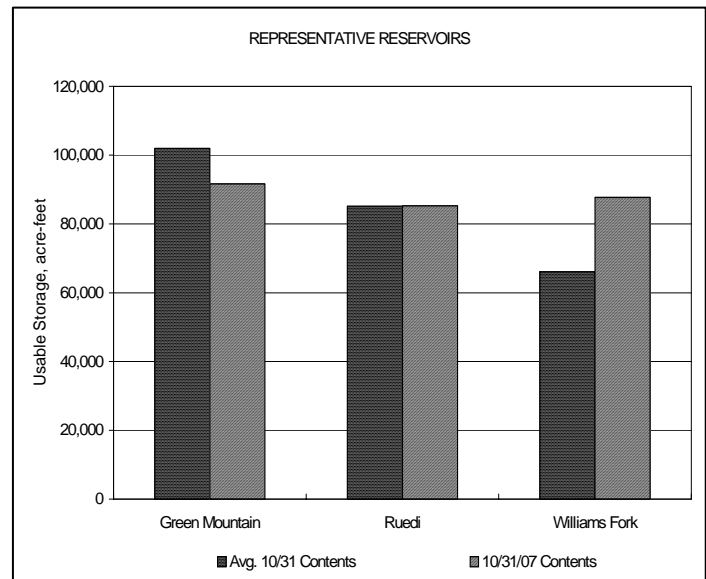
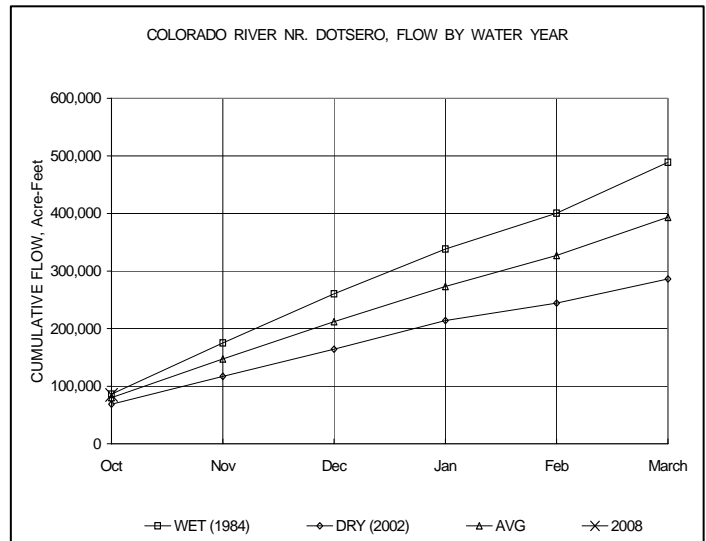
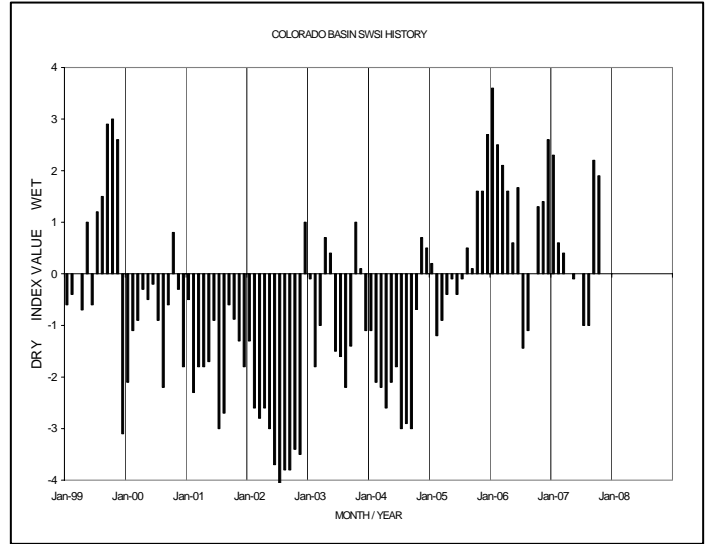
Administrative/Management Concerns

The State is beginning to consider establishing rules for water allocation in the event of a Colorado River shortage. The Colorado River Water Conservation District (CRWCD) recently passed a motion cautioning the State regarding development/implementation of new rules in the absence of studying the amount of water which can be safely developed. A current Colorado Water Conservation Board (CWCB) study aims to determine the amount of available water by identifying the hierarchy of water rights, and ascertaining the affect on water supplies during a river call.

In related state water concerns, legislation is being considered which would require developments to prove they have continuous, long-term water supplies. While developments are currently required to show possession of legal and available water, this new legislation would address the sustainability of water supplies over an extended period of several years.

Public Use Impacts

Ruedi Reservoir has begun 80-90 cfs release (average 60-70 cfs) to reach the target 65-70 acre-feet level by April 1, 2008. This supports more active spawning within the Lower Fryngpan fish habitat.



Basinwide Conditions Assessment

The SWSI value for the month was 1.4. Flow at the gaging station Yampa River at Steamboat was 157 cfs, as compared to the long-term average of 138 cfs.

October precipitation was above 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 135% of average for the Yampa/White River basin and 146% of average for the North Platte River basin.

The snow water equivalent (SWE) as of October 31, 2007 was 100% of average for the North Platte River basin, 54% of average for the Yampa River basin, and 78% of average for the White River basin.

Due to the increased precipitation, streamflows throughout the basins were generally at average or above average levels at the end of the month.

Outlook

The November temperature forecast for the area, based on NOAA data, is for above normal temperature for the month. The precipitation forecast is for an equal chance of above normal, normal, or below normal precipitation.

Fish Creek Reservoir storage level increased slightly in October and was reported at approximately 77% of capacity at the end of the month. Yamcolo Reservoir storage level also increased in October and the reservoir was at approximately 45% of capacity at the end of the month. Elkhead Creek Reservoir level declined during the month and the reservoir was at approximately 15,881 acre-feet or 64% of its' enlarged capacity (approximately 24,900 acre-feet) at the end of October. 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.

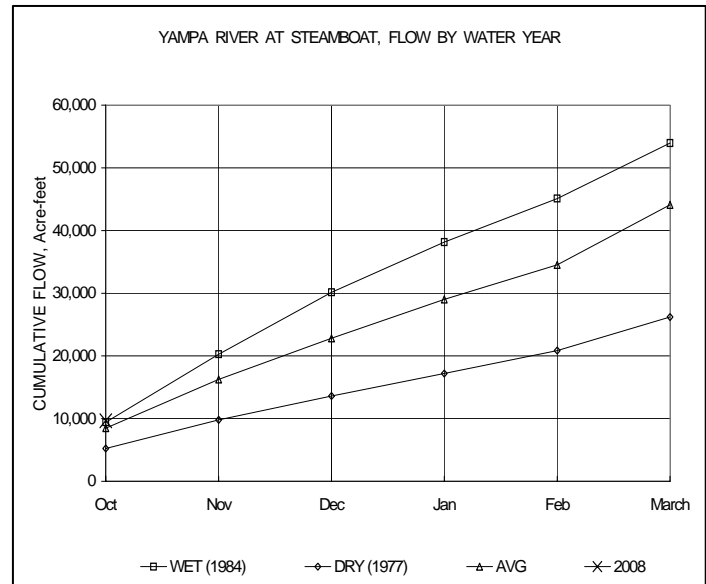
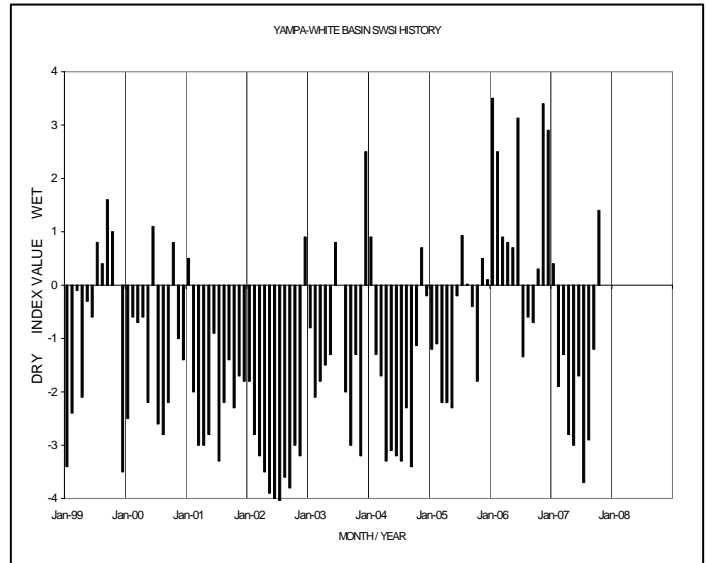
Administrative/Management Concerns

A number of calls were released in October and only Middle Hunt Creek, Piceance Creek, and Newcomb Creek remained under administration at the end of the month.

The first 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.

Public Use Impacts

Elkhead Creek Reservoir, which opened this spring after being closed for almost two years, was open for day-use fishing and recreational activities this summer.



Basinwide Conditions Assessment

The SWSI value for the month was 2.4. Flows at the Animas River at Durango averaged 577 cfs (141% of normal) with an average daily peak flow of 892 cfs on October 6th. The Dolores River at Dolores averaged 155 cfs (114% of normal) with an average daily peak flow of 237 cfs on October 6th. The La Plata River at Hesperus averaged 20.2 cfs (128% of normal) with an average daily peak flow of 44.7 cfs on October 6th.

Durango recorded 0.48 inches precipitation for the month which is well below the 30-year average of 1.98 inches. Precipitation to date in Durango, for the water year, is 0.48 inches which is 24.4% of the historic average. Temperatures in October were above normal for the month. Durango was 2.5° above its 30-year average high and 1.5° above its 30-year average low.

At the end of the month Vallecito Reservoir contained 67,210 acre-feet compared to its normal contents of 51,278 acre-feet (131% of normal). McPhee Reservoir has 287,618 acre-feet compared to its normal contents of 257,525 acre-feet (112% of normal). Lemon Reservoir has 22,340 acre-feet as compared to its normal content of 19,628 acre-feet (114% of normal).

Outlook

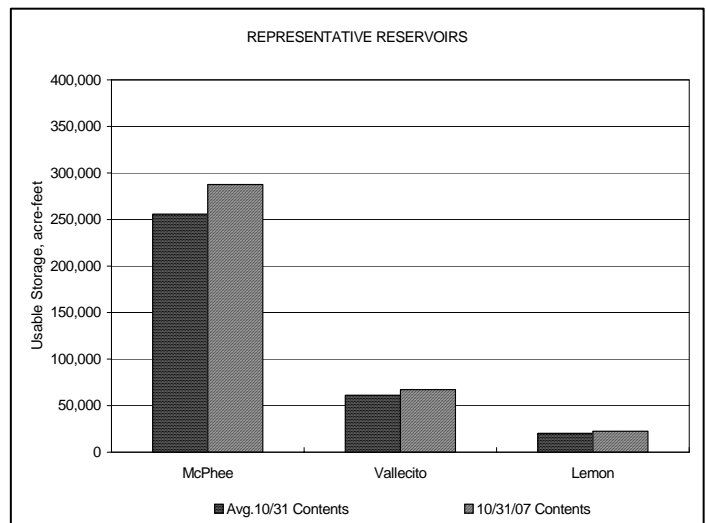
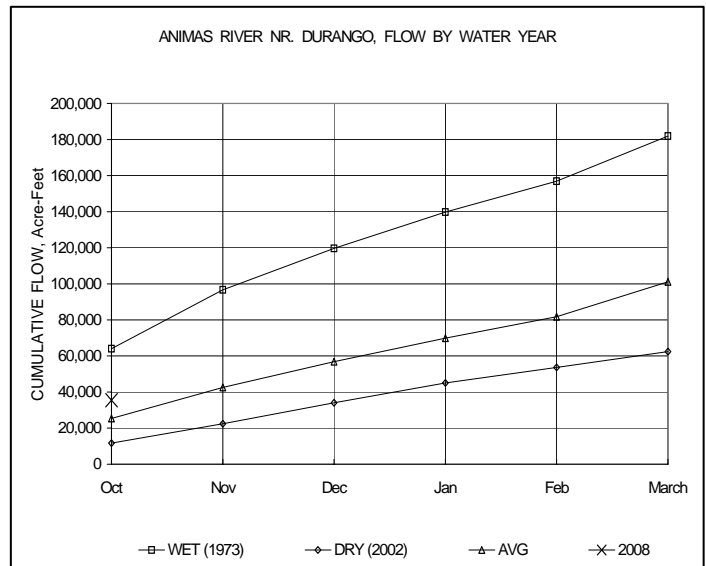
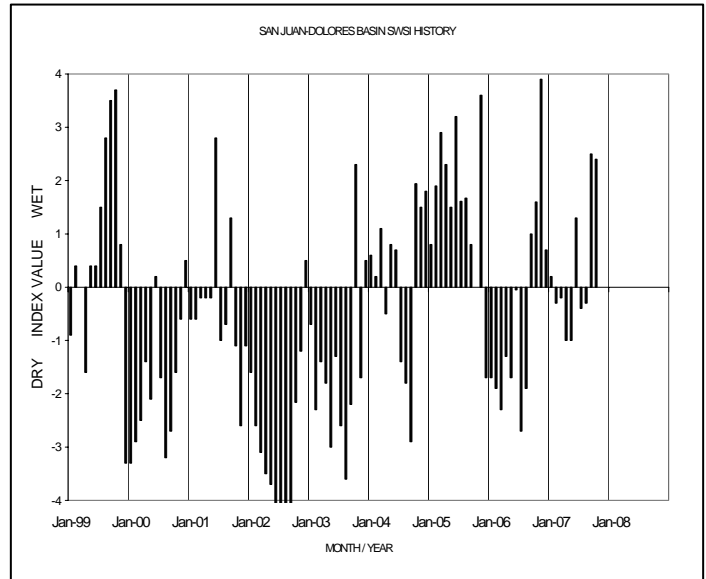
October precipitation was well below average. With the irrigation season over, many reservoirs have begun storing water for next year. The high mountains have received more precipitation in the way of snow fall, but the warmer than normal temperatures at the end of the month has melted most of the snow.

Administrative/Management Concerns

The City of Durango RICD filing and their opponents continue to try and reach a settlement before the case is scheduled to go to trial in January 2008. To date settlement looks promising but there is still a lot of work remaining before all parties will agree.

Public Use Impacts

Kayaking has continued to be observed by DWR staff on the Animas River.



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