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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November 2005

The November 1st SWSI values are positive for every basin, a situation that has not occurred since the fall of 1999. Administrators in every basin except the Yampa/White indicated good amounts of precipitation were received during October. Statewide, stream flows are doing well and reservoir storage is 103% of normal, although there are always site-specific variations. It is not typical for Colorado to experience the same wet or dry conditions over the entire state. Typically, at any point in time, some portion of the state is experiencing dry conditions. One must also be aware that fall and early winter conditions are not good indicators of the coming winter's snowpack or next year's runoff and water supply.

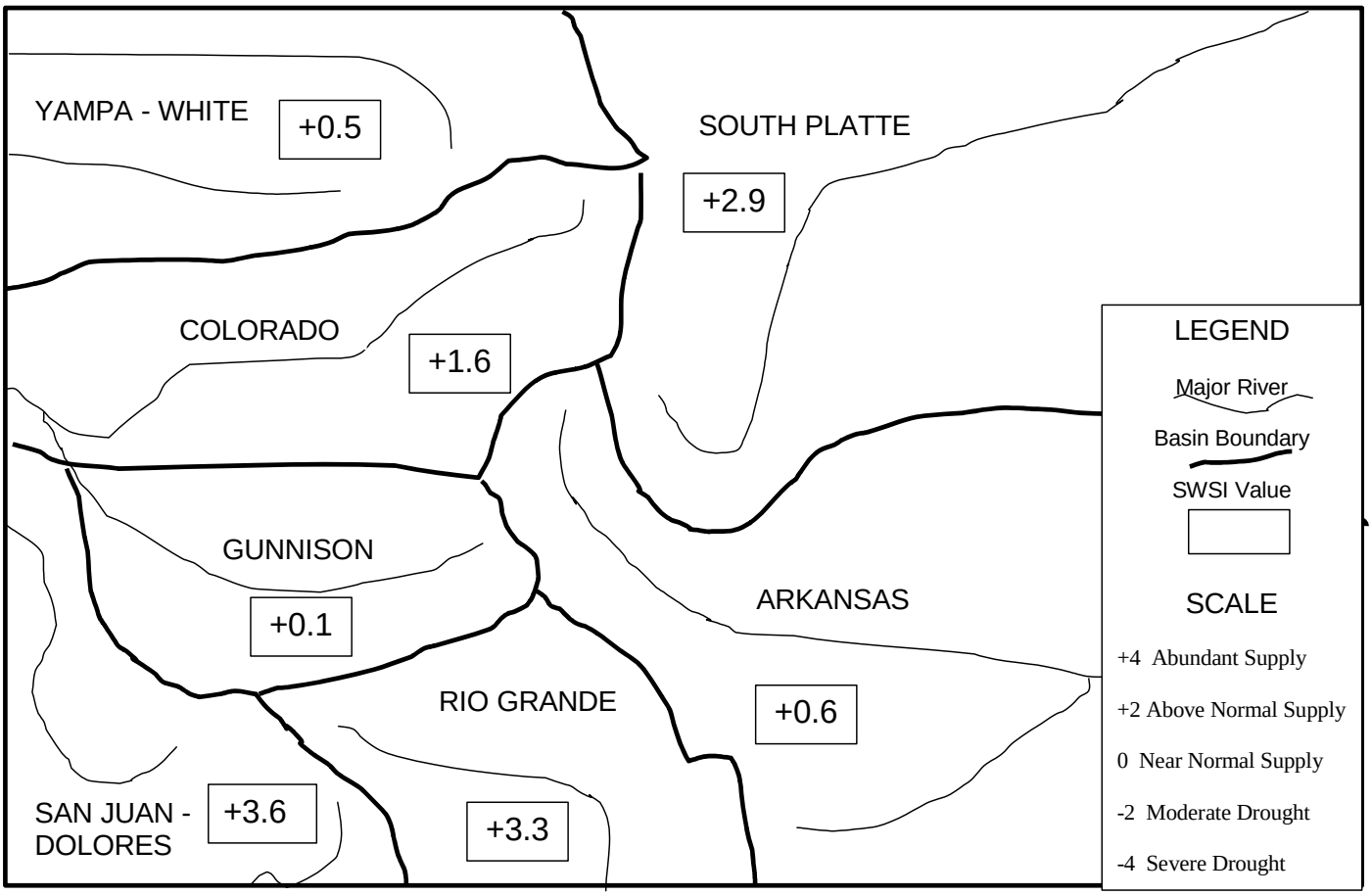
The Surface Water Supply Index (SWSI) developed by this office and the U.S.D.A. Natural Resources Conservation Service is used as an indicator of mountain-based water supply conditions in the major river basins of the state. It is based on stream flow, reservoir storage, and precipitation for the summer 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 following SWSI values were computed for each of the seven major basins for November 1, 2005, and reflect the conditions during the month of October.

Basin	November 1, 2005 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	2.9	+1.1	+1.4
Arkansas	0.6	+2.1	+1.4
Rio Grande	3.3	+3.4	+3.2
Gunnison	0.1	+1.4	+1.1
Colorado	1.6	+0.0	+0.9
Yampa/White	0.5	+2.3	-0.2
San Juan/Dolores	3.6	+3.6	+2.1

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, 2005

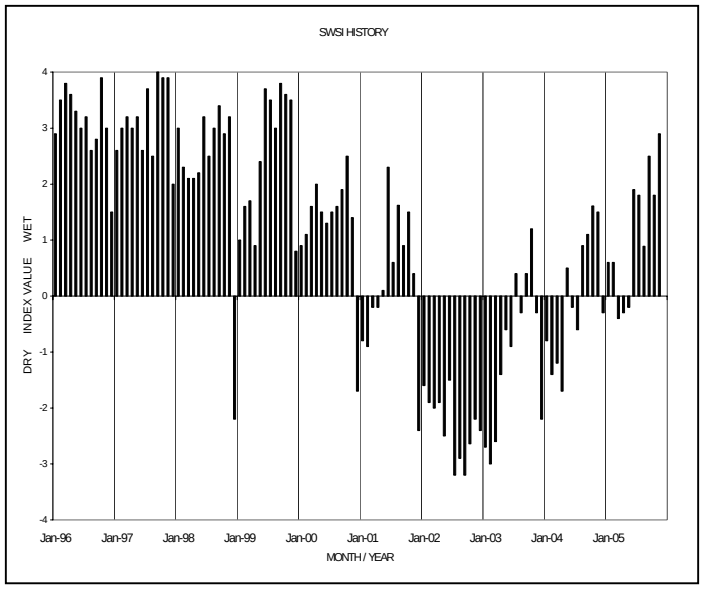
Basinwide Conditions Assessment

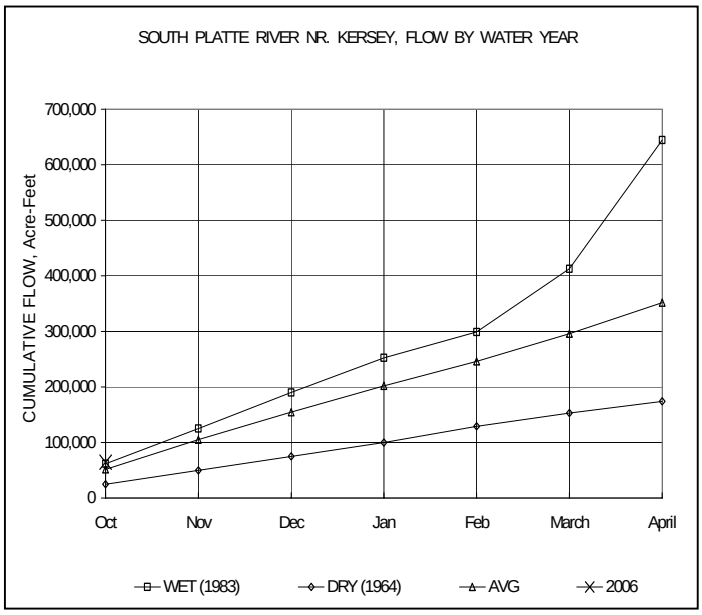
The SWSI value of 2.9 indicates that for November the basin water supplies were above normal. Reservoir storage, the major component in this basin in computing the SWSI value, was 109% of normal as of the end of October. Cumulative storage in the major plains reservoirs: Julesberg, North Sterling, and Prewitt, is at 39% of capacity. Cumulative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney, and Antero is at 86% of capacity. Flow at the gaging station South Platte River near Kersey was 1,051 cfs, as compared to the long-term average of 648 cfs. Flow at the Colorado/Nebraska state line averaged 137 cfs.

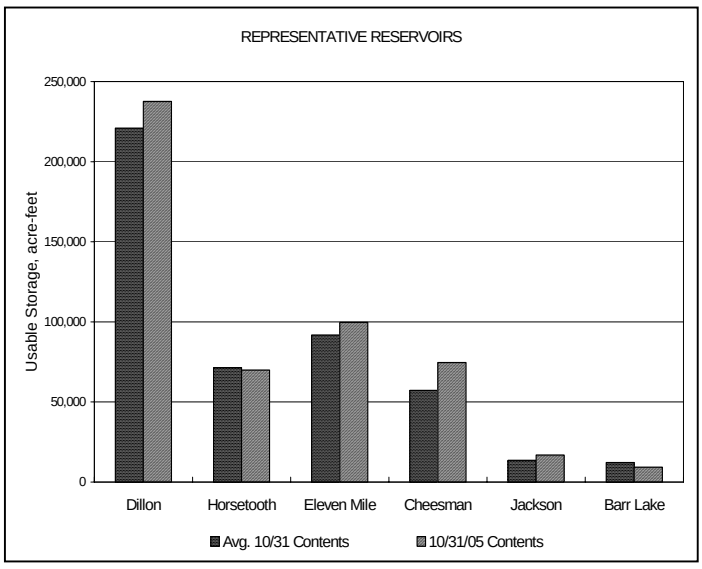
With basin wide precipitation in the first half of October, supplies were adequate for all irrigation and municipal users on the South Platte and tributaries as the irrigation season wound down. Because of the wet conditions, there was also sufficient water to begin refilling reservoirs rights and sufficient water to allow limited recharge. There were even a few days of free river along the whole length of the South Platte below Chatfield reservoir, an unusual situation the last several years in the fall.

Outlook

The storage that occurred in October will be helpful in filling South Platte mainstem reservoirs next spring. Overall, the storage at the end of October is higher along the South Platte than in the previous few years. On the tributaries, storage conditions are excellent compared to the previous few years. Thus, the initial outlook for next year is much better at the end of October than it has been in a few years.



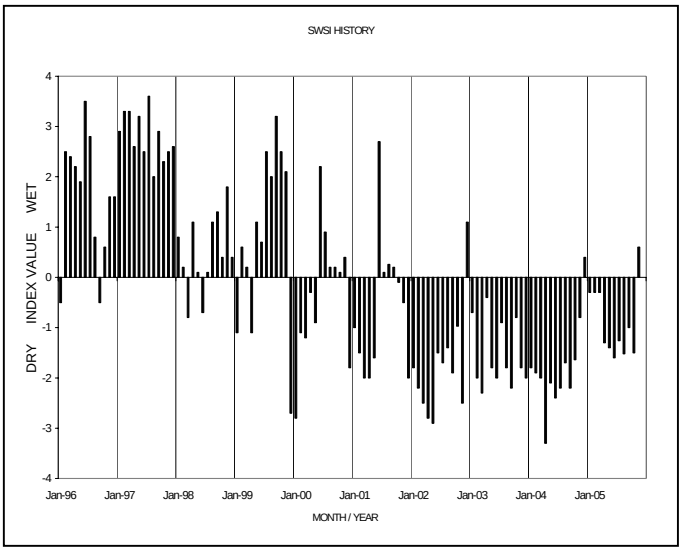




Basinwide Conditions Assessment

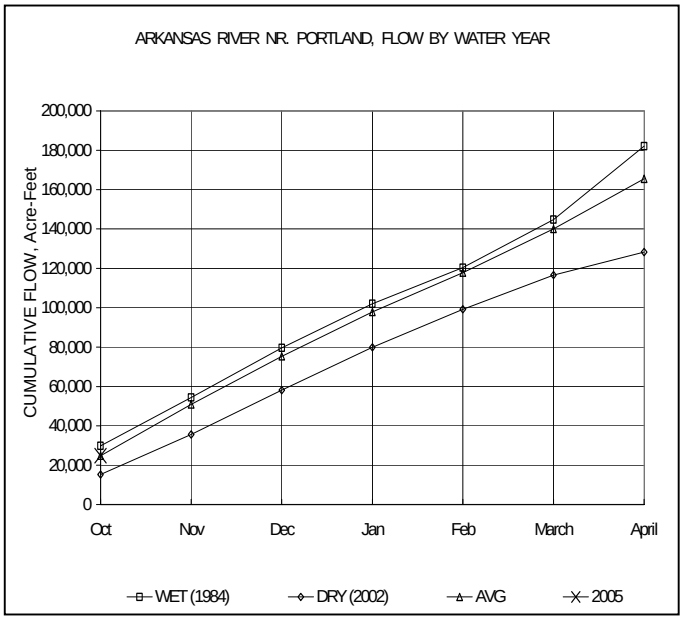
The SWSI value of 0.6 indicates that for November the basin water supplies were near normal. Flow at the gaging station Arkansas River near Portland was 404 cfs, equaling the long-term average of 404 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 72% of normal as of the end of October.

The river call for October began at the Fort Lyon #1 4/15/1884 call and alternated through the month between ditches below John Martin Reservoir and the Catlin and Fort Lyon above John Martin. Flows increased towards the end of October causing the call to tend more junior.



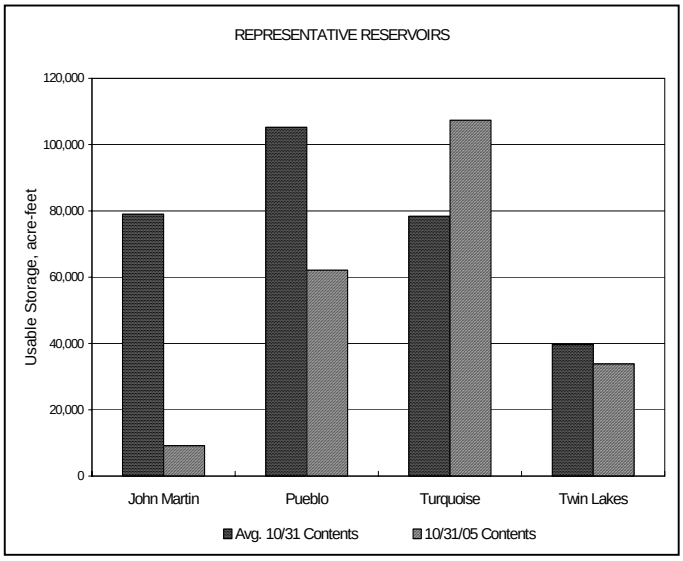
Outlook

A meeting of the Winter Water Board of Directors was held in La Junta on October 27, 2005. Planning for the upcoming storage season which runs from November 15, 2005 through March 14, 2006 was the topic at this meeting. Several participants plan to store in off-channel reservoirs this year including the Fort Lyon Canal, which plans to store in Adobe Creek Reservoir if flows are high enough to allow a reasonable delivery.



Administrative/Management Concerns

The Division Engineer's Office provided comments and reviewed concerns about the Water Court cases submitted by the Lower Arkansas Water Management Association (LAWMA) and the Arkansas Groundwater Users Association (AGUA). LAWMA and AGUA are both seeking to change irrigation rights to include augmentation use so that the rights may continue to be used in their well replacement plans past June of 2006. The June deadline is associated with the Arkansas Basin Use Rules, which allow temporary use of a water right without a Water Court change for no longer than ten years.

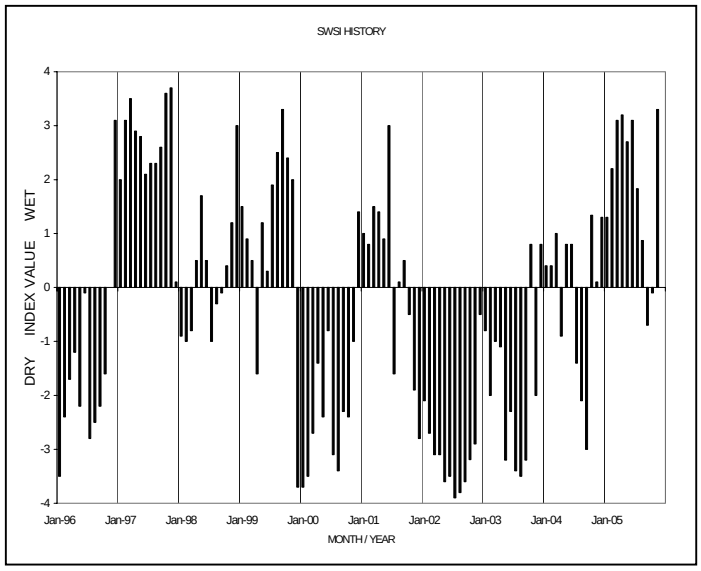


Basinwide Conditions Assessment

The SWSI value of 3.3 indicates that for November the basin water supplies were above normal. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 82% of normal as of the end of October.

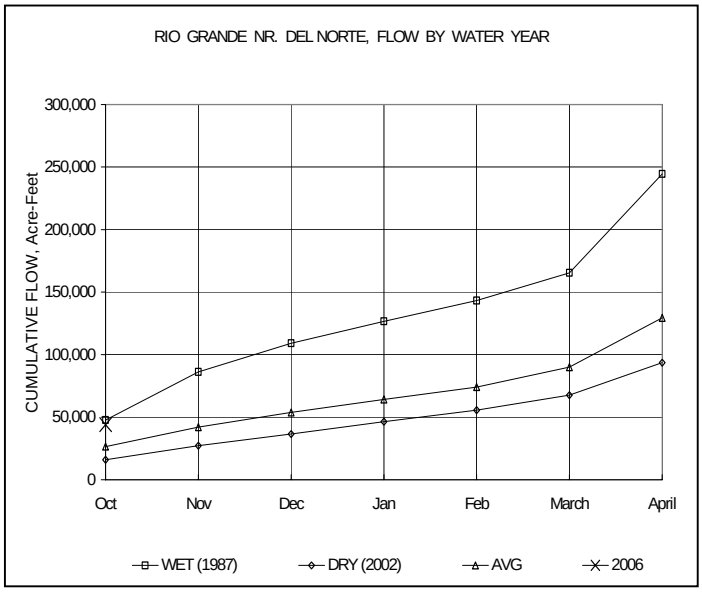
Flow at the gaging station Rio Grande near Del Norte averaged 717 cfs (148% of normal). The Conejos River near Mogote had a mean flow of 324 cfs (279% of normal). The high stream flow in the Conejos River was due in part to the rainfall, but much of the flow at the Mogote gage was released from Platoro Reservoir for irrigation and Compact delivery needs.

Precipitation during October in Alamosa was 1.18 inches, 0.51 inches above normal. Rain in the valley and snowfall in the mountains during mid-month bolstered stream flow and got the winter snow pack off to a start.



Outlook

Autumn in the San Luis Valley can be very beautiful, as is the case this year. Weather conditions have been generally very pleasant, with sunny days and mild temperatures. Precipitation in the basin during September and October improved the soil moisture and stream flow conditions after the cruel conditions throughout July and August. However, a glance at the snowpack conditions during the first week of November indicates most of the upper Rio Grande basin is lagging well behind average.



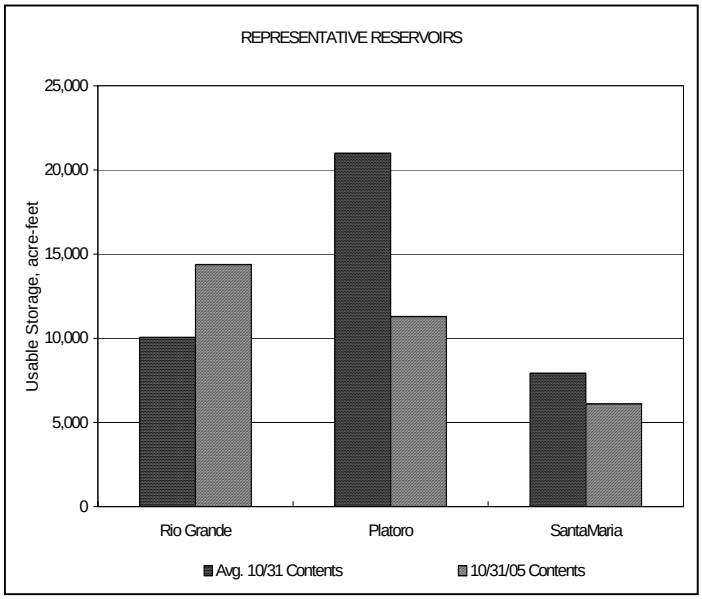
Administrative/Management Concerns

Reservoirs in the basin reduced outflows and began storing inflow as October came to a close. The summer irrigation demand decimated the storage in most of the basin's reservoirs.

Colorado is very likely to deliver to the New Mexico state line the amount required this year under the Rio Grande Compact without much excess. The final results won't be available until January.

Public Use Impacts

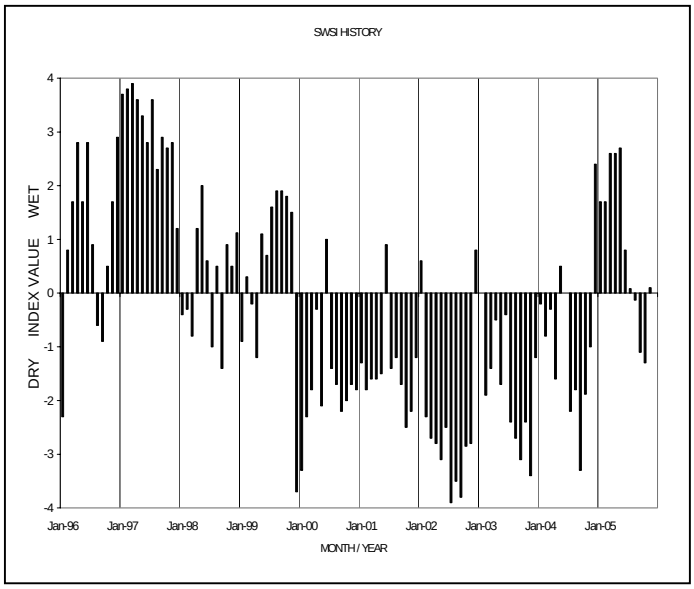
Above normal stream flow and mild weather conditions allowed those water users in priority to continue irrigation through the end of October.



Basinwide Conditions Assessment

The SWSI value of 0.1 indicates that for November the basin water supplies were near normal. Flow at the gaging station Uncompahgre River near Ridgway was 122 cfs, as compared to the long-term average of 87 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 103% of normal as of the end of October.

The month of October was another good month for precipitation in the Gunnison Basin. The National Weather Service in Grand Junction reports that their year-to-date precipitation is 140% of normal. This year marks the first year since 1997 that Grand Junction has received more than it's annual average precipitation. However, this does not necessarily mean the drought is over.

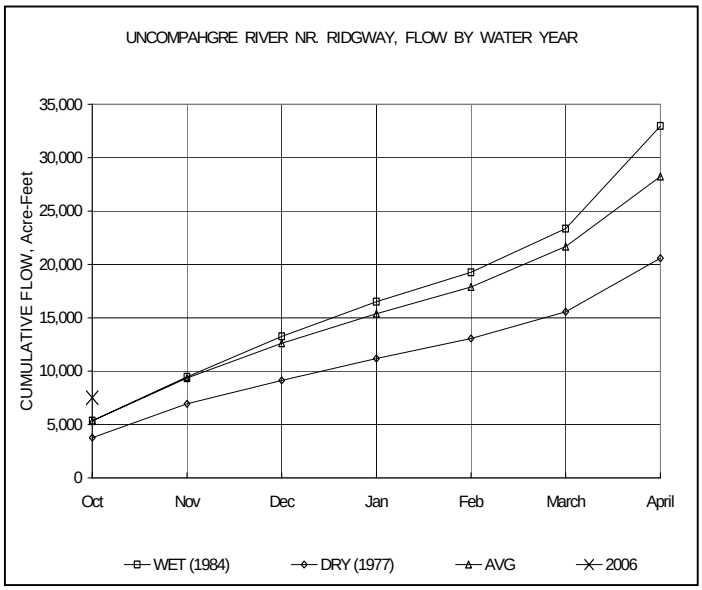


Administrative/Management Concerns

As a standard operating criteria, Blue Mesa is drawn down to meet a target elevation of 7,490 feet (580,000 af) by the end of December. This goal is to prevent icing problems upstream of the reservoir, where historically ice jams in the Gunnison River have inundated fields and threatened subdivisions. The reservoir is now at that level, so the USBR has decided to only release 400 cfs until January 1. The minimum release is 300 cfs. If the forecasted inflow at that time is favorable, then they will increase the releases for power purposes. December through March are important power production months for the facilities in the Aspinall Unit.

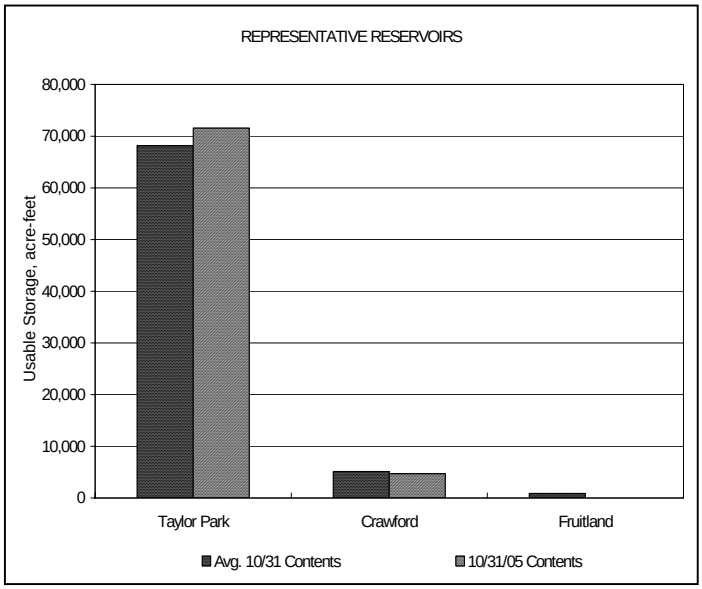
This is the time of year that reservoir releases are set at minimum flows to store as much water as possible during the winter season. At Taylor Park Reservoir, the releases have been set at 75 cfs. The USBR does not like to go below this flow, so as to prevent resource damage to the stream channel below. In good years, the winter release is 100 cfs. The reservoir did not fill this year, so the USBR wants to fill up the reservoir if possible.

At Ridgway Reservoir, the irrigation season releases were stopped on November 1, since the Gunnison Tunnels and UVWUA canals were shut off at that time. The winter release has been set at 58 cfs, but is expected to drop to 50 or 45 cfs for the winter. The reservoir is below normal for this time of year due to the draw down of stored water from downstream irrigators. The reserve should not have a hard time filling next year.



Public Use Impacts

The September and October rains have dramatically improved the soil moisture conditions, which should help going into the winter. The mountains are whiter than normal for this time of year, and water users are optimistic for another good winter snowfall.



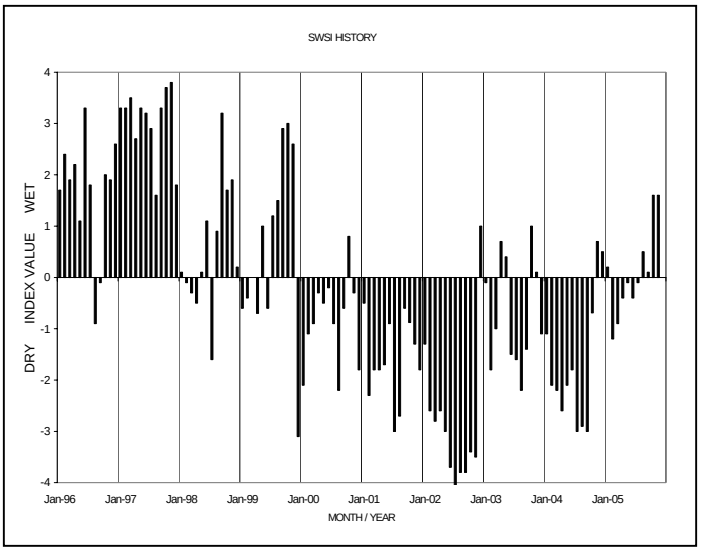
Basinwide Conditions Assessment

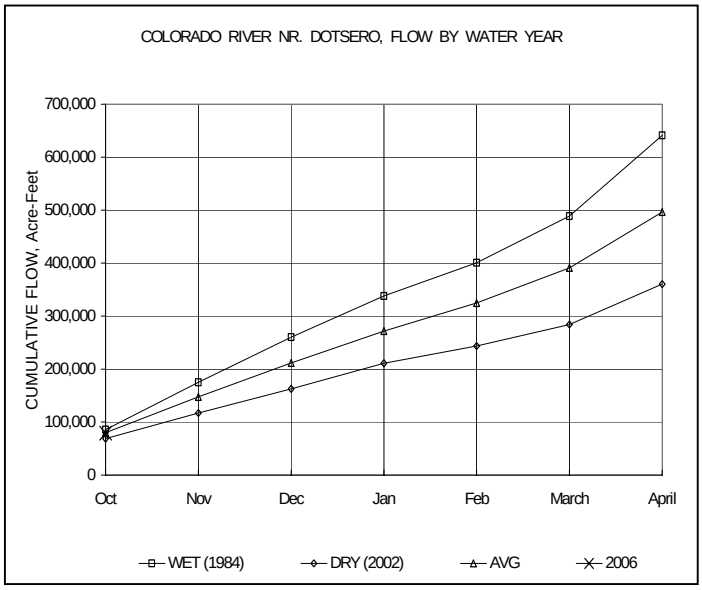
The SWSI value of 1.6 indicates that for November the basin water supplies were slightly above normal. Flow at the gaging station Colorado River near Dotsero was 1,283 cfs, as compared to the long-term average of 1,300 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 106% of normal as of the end of October.

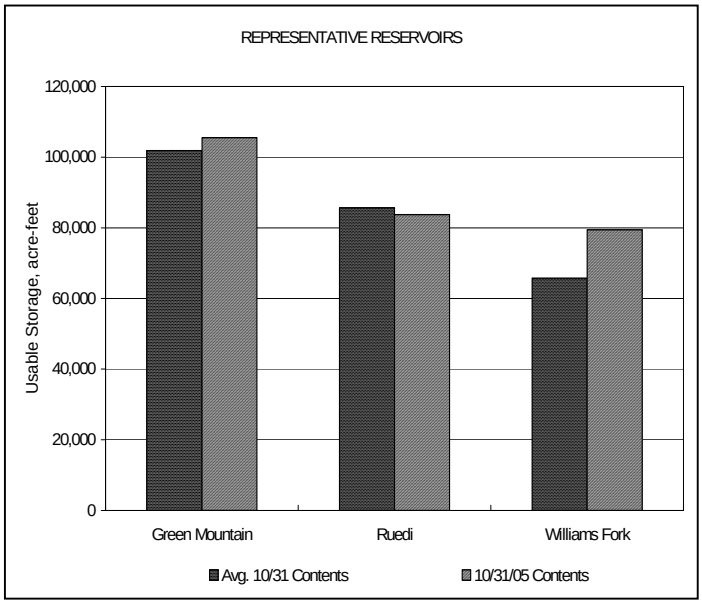
October precipitation was above average for the entire Colorado River basin, helping to improve soil moisture levels and increasing stream flows to above average on many tributaries. Several large snowstorms during the month produced above average snowpack at higher elevations in several basins (e.g., Blue River), but early snowpack is below average in most of the basin.

Public Use Impacts

Higher stream flows have ensured that water is available for snowmaking, as ski areas are scrambling to cover their mountains for the start of the season. Unfortunately, unseasonably warm weather has hindered snowmaking efforts heading into November.



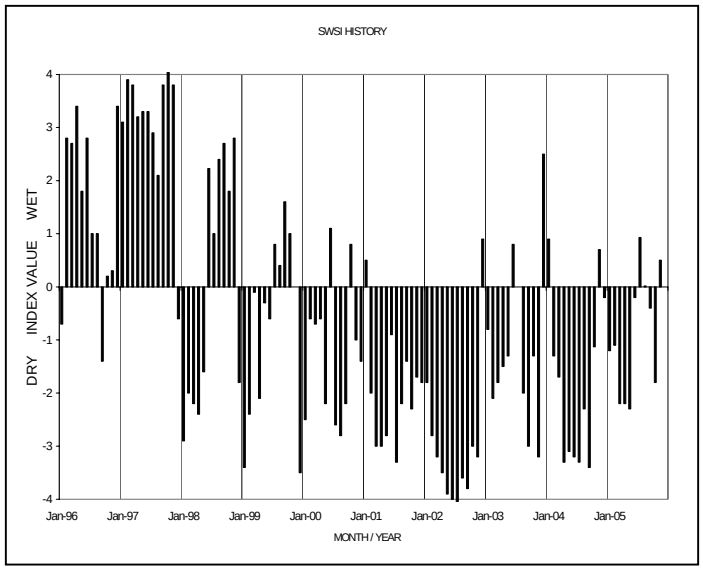




Basinwide Conditions Assessment

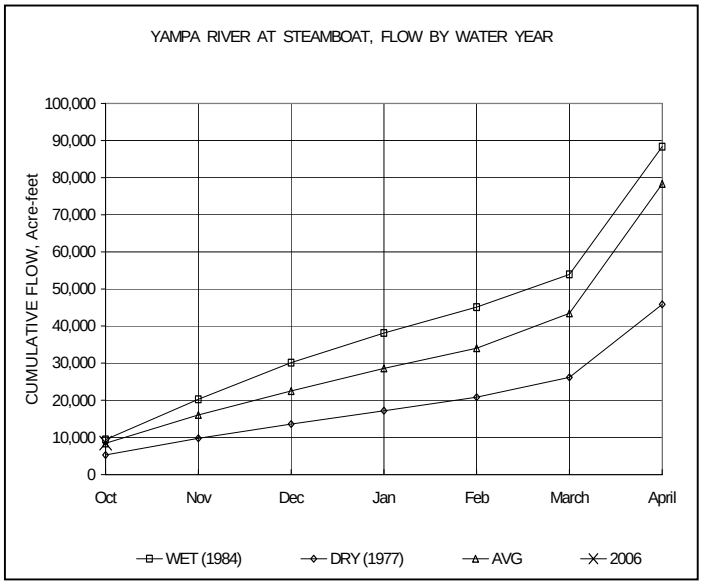
The SWSI value of 0.5 indicates that for November the basin water supplies were near normal. Flow at the gaging station Yampa River at Steamboat was estimated at 138 cfs, as compared to the long-term average of 137 cfs.

October was another below average precipitation month for the basin. Precipitation, as recorded at the SNOTEL sites operated by the NRCS, totaled 81% of average for the month. Despite the below average precipitation, several small storms moved through the area that produced the first measurable snowfall for the mountains. However, much of the moisture came in the form of rain that helped replenish the soil moisture content over much of the basin. The end-of-month SNOTEL readings showed the snowpack to be 50% of average for the Laramie/North Platte River drainage and 24% of average for the Yampa/White River drainage. Stream flow for most of the gaging stations in the division were above average for most of October



Outlook

The November forecast for the area is for an equal chance of average temperatures and normal precipitation for the basin.



Basinwide Conditions Assessment

The SWSI value of 3.6 indicates that for November the basin water supplies were above normal. Flow at the gaging station Animas River near Durango was 642 cfs, as compared to the long-term average of 379 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 122% of normal as of the end of October.

October weather brought much needed moisture to the Southwestern Colorado area. In Durango, 2.95 inches of rain were recorded (168% of average) over several storm events spread throughout the month. A fair amount of snow fell in the higher mountain areas but snow courses did not rise appreciably compared with previous years.

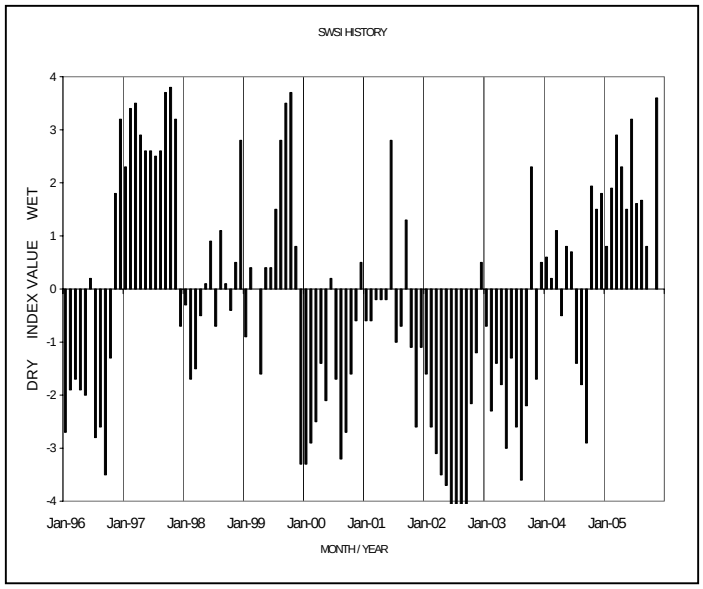
Stream flows came up to above average for the month. The Animas River reached 1,230 cfs on October 5 and averaged 642 cfs for the month, which is 150% of normal. The Dolores River flowed near normal amounts for the month. McElmo Creek ran in excess of 3000 cfs into Utah after one storm early in the month.

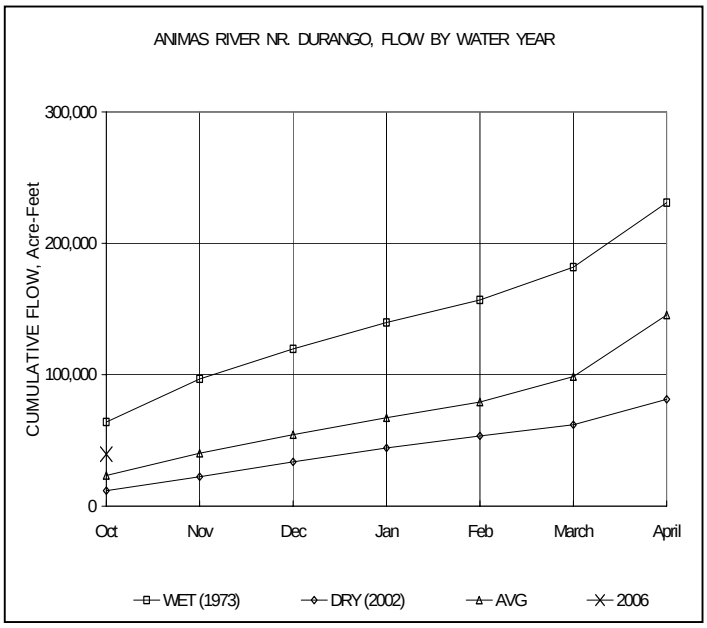
Reservoirs carried significant quantities of water into the new water year. All major reservoirs were holding above average storage by the end of the month. Vallecito reservoir may release some of its pool before the freeze occurs.

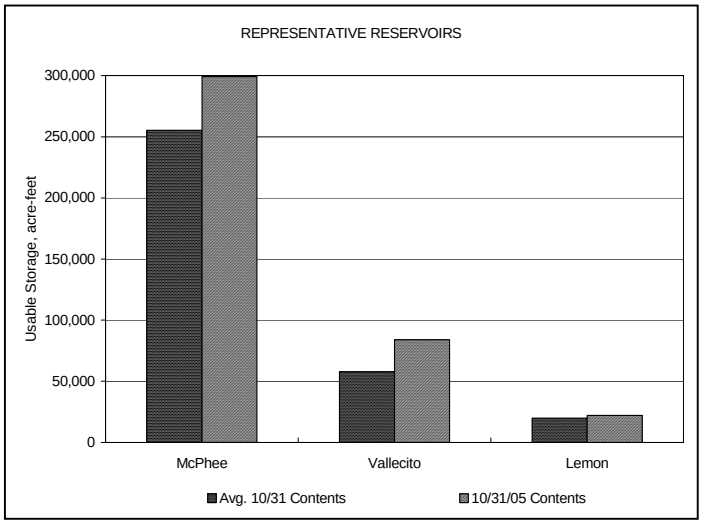
The temperatures remained fairly high. In Durango freezing temperatures were not recorded until the last days of the month. Daily highs were fairly cool though slightly below average.

Outlook

The outlook is good for a normal winter if the weather patterns continue as they have in the past month.







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