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
303-866-3581; www.water.state.co.us

JUNE 2000

The increase in SWSI values from last month follows the change in major SWIS component from snowpack to stream flow, and the initiation of the runoff in May. This year the runoff peaked in May, and the resulting stream flows boosted the SWSI values. All basins reported dry and warm weather during May. Little to no snowpack remains at the Natural Resources Conservation Service's snowpack measurement sites as of June 1, therefore stream flows are expected to drop below normal in June and following months, with some areas experiencing much below normal flows.

Absent above normal rainfall, junior water right holders will be diverting less water from streams. Those who have reservoir water will likely be using more of their storage than they have in recent years. Reservoir storage levels are above average throughout the state.

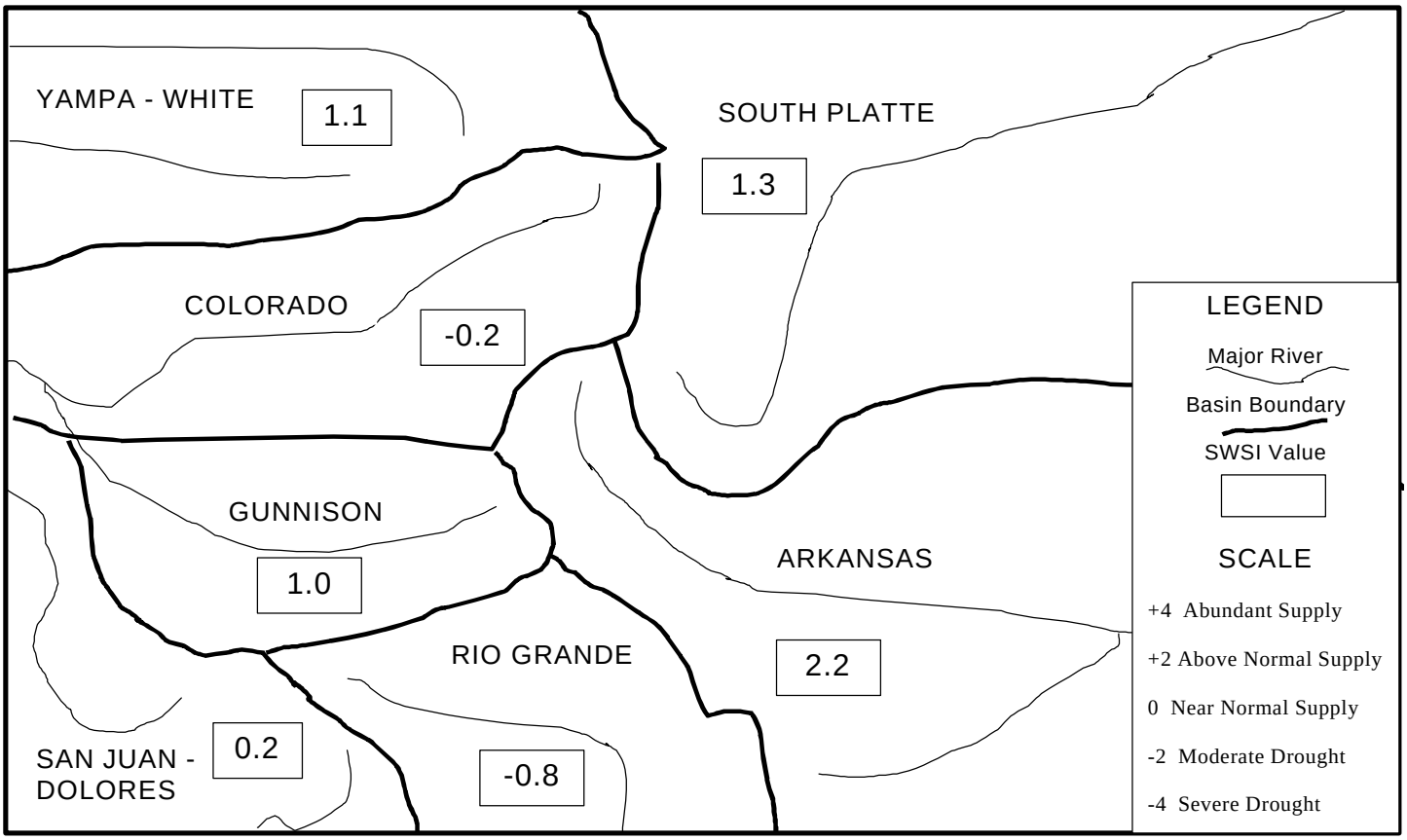
The Surface Water Supply Index (SWSI) developed by this office and the U.S.D.A. Natural Resources Conservation Service is used as an indicator of mountain-based water supply conditions in the major river basins of the state. It is based on stream flow, reservoir storage, and precipitation for the summer 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 June 1, 2000, and reflect the conditions during the month of May.

Basin	June 1, 2000 SWSI Value	Change From Previous Month	Change From Previous Year
South Platte	1.3	-0.2	-2.4
Arkansas	2.2	+1.3	+1.5
Rio Grande	-0.8	+0.5	-2.2
Gunnison	1.0	+3.1	+0.3
Colorado	-0.2	+0.3	+0.4
Yampa/White	1.1	+3.3	+1.7
San Juan/Dolores	0.2	+2.3	-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

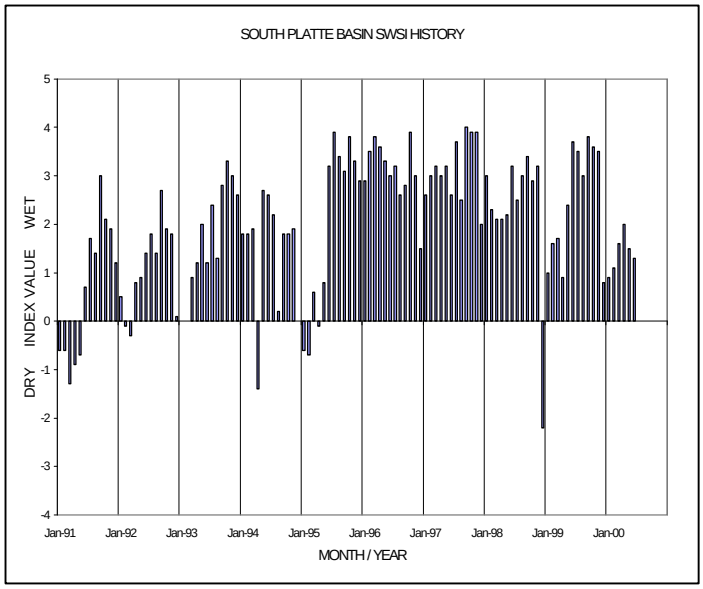


JUNE 1, 2000

Basinwide Conditions Assessment

The SWSI value of 1.3 indicates that for May the basin water supplies were above normal. Reservoir storage, the major component in this basin in computing the SWSI value, was approximately 104% of normal as of the end of May. The Natural Resources Conservation Service reports that June 1 snowpack is 25% of normal. Flow at the gaging station South Platte River at Kersey was 791 cfs, as compared to the long-term average of 2,609 cfs. Flow at the Colorado/Nebraska state line averaged 165 cfs.

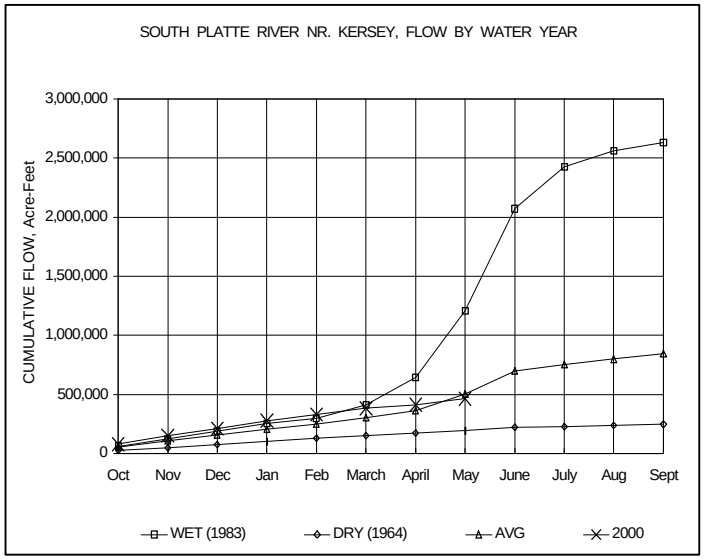
The generally dry, warm conditions continued through May. These conditions created direct flow irrigation calls on the tributaries and on the South Platte for at least part of the month. While this is not unusual for May, it is a significant departure from conditions the last several years where there has generally either been a free river or calls were for storage.



Outlook

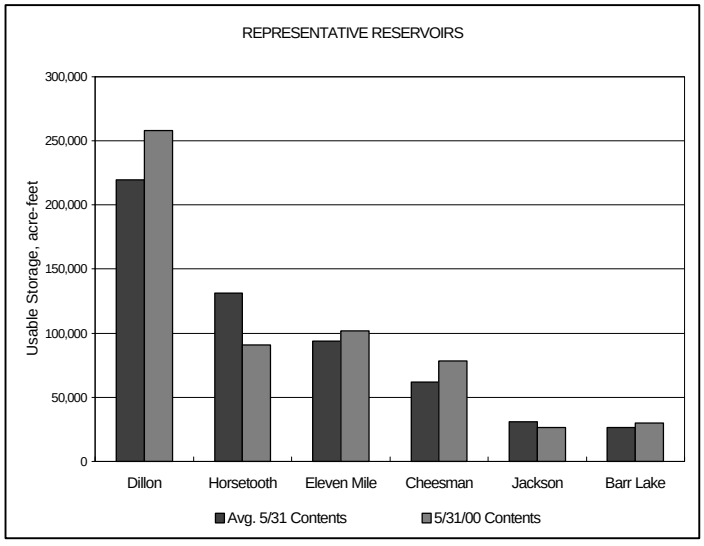
It had appeared that by the end of May there would be at least a limited period where many storage rights would be able to take water to refill a portion of their capacity. However, it now appears that runoff will be lower than usual and will occur approximately 2 weeks earlier than normal. Due to the early and low runoff, junior storage rights may not be able to be completely filled. Also, senior calls on the river will probable occur prior to normal. If there are earlier senior calls, releases from reservoirs may also be earlier than usual, possibly stressing some supplies late in the summer.

Because the storage situation is very good from the previous year and early spring, it is not anticipated that there will be significant shortages this year.



Administrative/Management Concerns

Of significant note, the Bureau of Reclamation and the Northern Colorado Water Conservancy District did not completely fill Horsetooth Reservoir this year and will be drawing the reservoir down the remainder of the summer to allow for upgrades on the four dam faces. Northern does not believe the modernization of the dam, which reduces storage by approximately 100,000 acre-feet for the next few years, will affect the quota for the Colorado Big Thompson Project. It certainly will not affect water supply this year. However, it obviously will have impacts on recreational use of Horsetooth Reservoir.



Basinwide Conditions Assessment

The SWSI value of 2.2 indicates that for May the basin water supplies were above normal. The Natural Resources Conservation Service reports that June 1 snowpack is 31% of normal. Flow at the gaging station Arkansas River near Portland was 1,430 cfs, as compared to the long-term average of 1,144 cfs. Storage in Turquoise, Twin Lakes, Pueblo, and John Martin reservoirs totaled 196% of normal as of the end of May.

Outlook

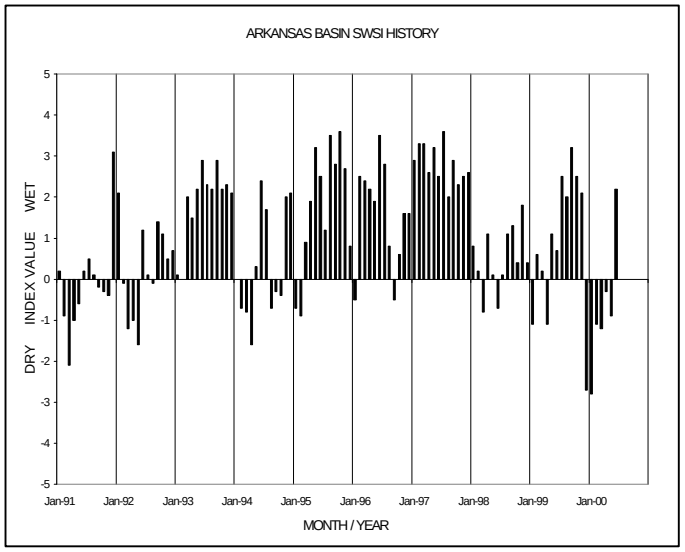
Reservoir storage levels remained high during May. Pueblo, John Martin, and Trinidad Reservoirs averaged 90% of conservation pool capacities. Reservoir levels are decreasing as dry weather is causing irrigators to release more stored water.

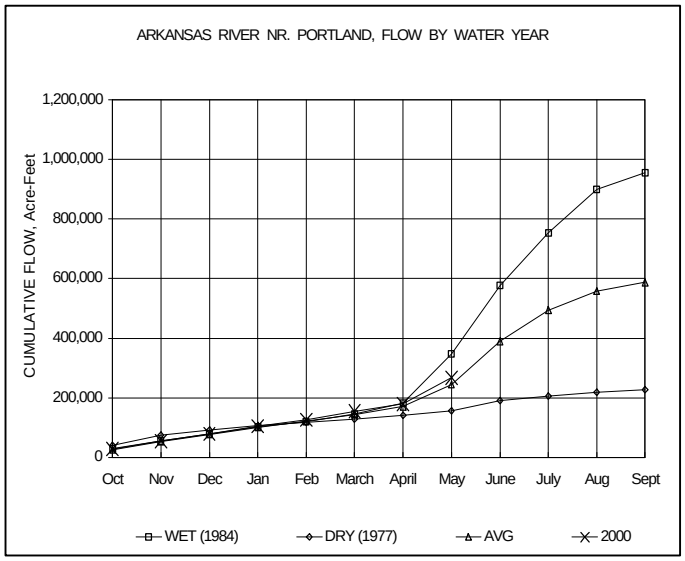
Administrative/Management Concerns

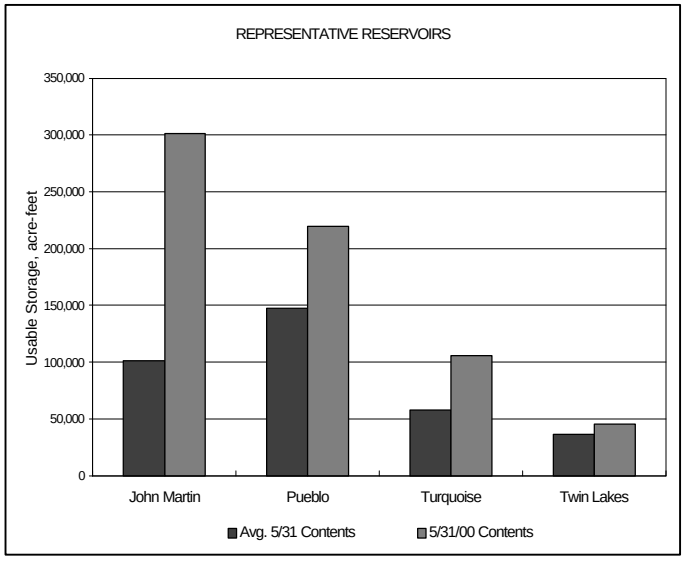
If the dry weather trend continues, the potential exists for calls on the Arkansas main stem below John Martin and on Fountain Creek.

Public Use Impacts

None.







Basinwide Conditions Assessment

The SWSI value of –0.8 indicates that for May the basin water supplies were slightly below normal. The Natural Resources Conservation Service reports that as of June 1 there is only 1% of normal snowpack remaining at the measurement sites. Flow at the gaging station Rio Grande near Del Norte was 2,355 cfs, as compared to the long-term average of 2,441 cfs. The Conejos River near Mogote had a mean flow of 692 cfs (62% of normal). Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 105% of normal as of the end of May.

Precipitation in Alamosa during May was a paltry 0.10 inches, 0.54 inches below normal. For the 7th consecutive month, the average temperatures in the San Luis Valley were above normal.

Outlook

The June 1st NRCS stream flow forecasts are predicting a well below average runoff for streams throughout the Rio Grande Basin

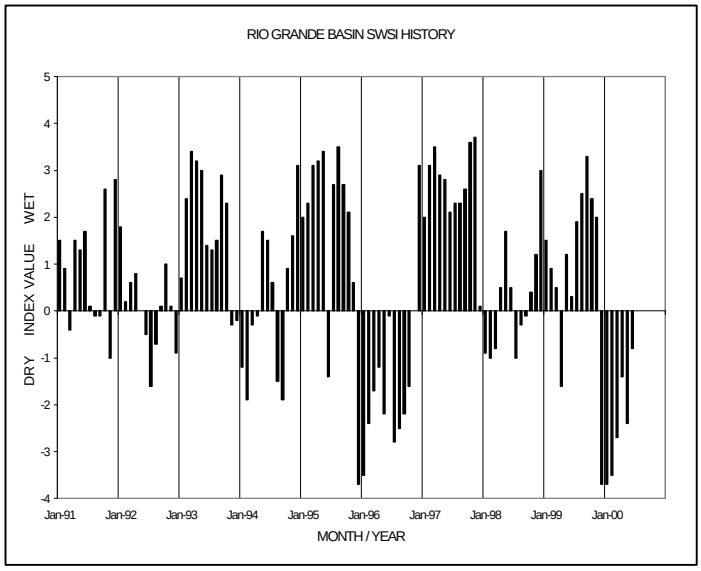
Administrative/Management Concerns

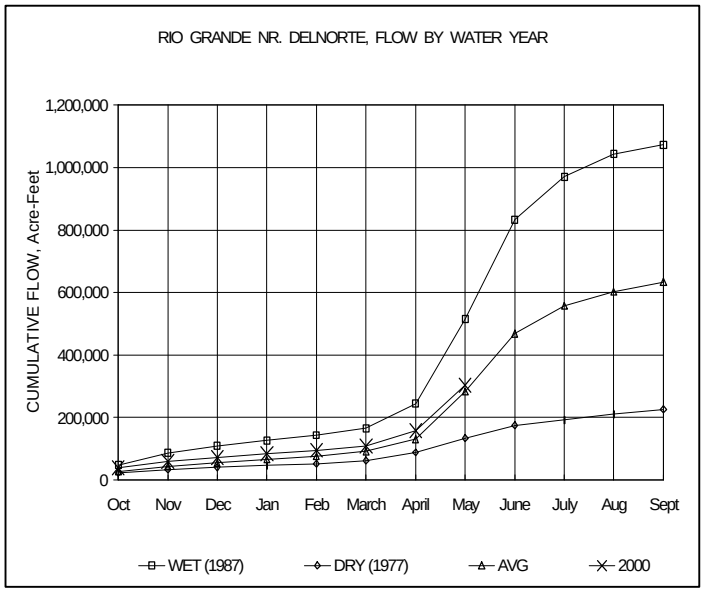
Due to the expected low runoff, Colorado should have no problem meeting the delivery requirements to New Mexico and Texas pursuant to the Rio Grand Compact. No curtailment of water rights to increase water delivery to the state line should be necessary.

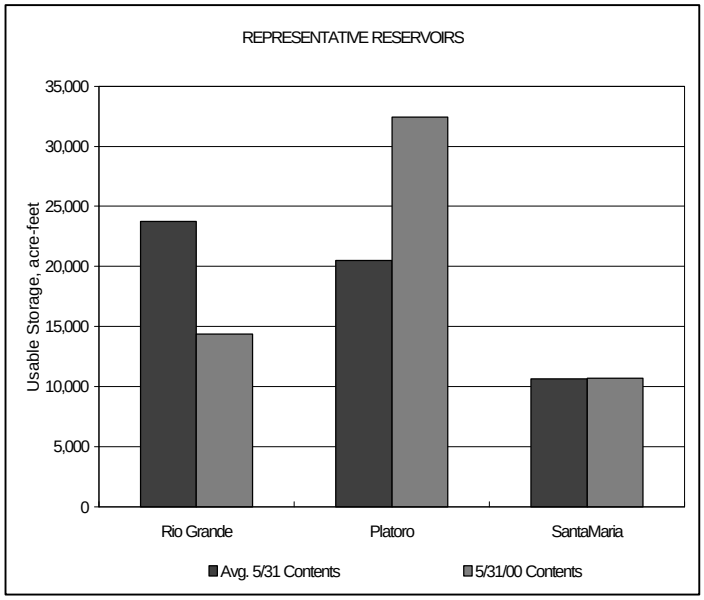
Extra effort will be made this summer to check headgates and regulate legal diversions.

Public Use Impacts

Normal farming and ranching operations were in full swing during May. However, wind and the lack of precipitation made the need for irrigation even higher.







Basinwide Conditions Assessment

The SWSI value of 1.0 indicates that for May the basin water supplies were slightly above normal. The Natural Resources Conservation Service reports that as of June 1 there is no snowpack remaining at the measurement sites. Flow at the gaging station Uncompahgre River near Ridgway was 380 cfs, as compared to the long-term average of 323 cfs. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 128% of normal as of the end of May.

Some of the larger reservoirs are still filling from runoff, but most now are releasing water and the smaller reservoirs are showing a drop in storage. The North Fork area began releasing reservoir water just before the last week in May and administration is in full swing. Ridgway Reservoir has spilled for the purposes of removing some of the silt, branches, and other debris floating on the surface.

The runoff has apparently peaked and is now tapering off.

Outlook

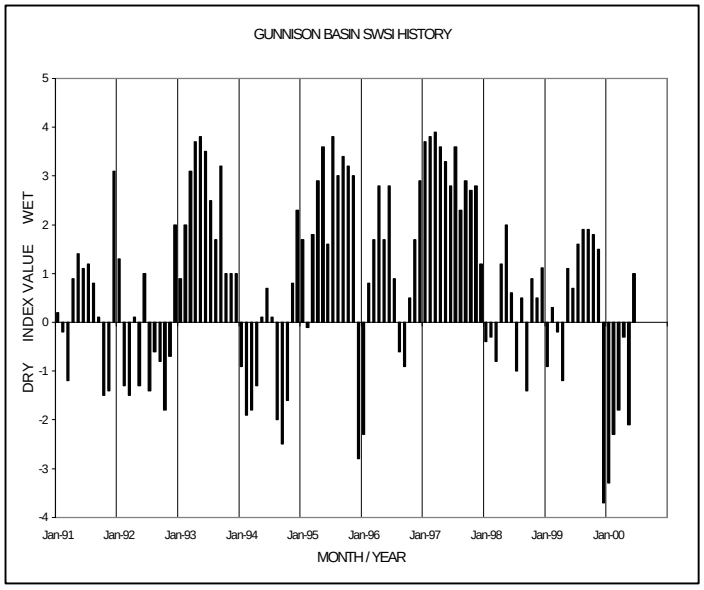
Field personnel are experiencing unyielding winds under hot dry conditions which is only putting more demands on the already scant supplies. Absent precipitation the outlook is looking grim.

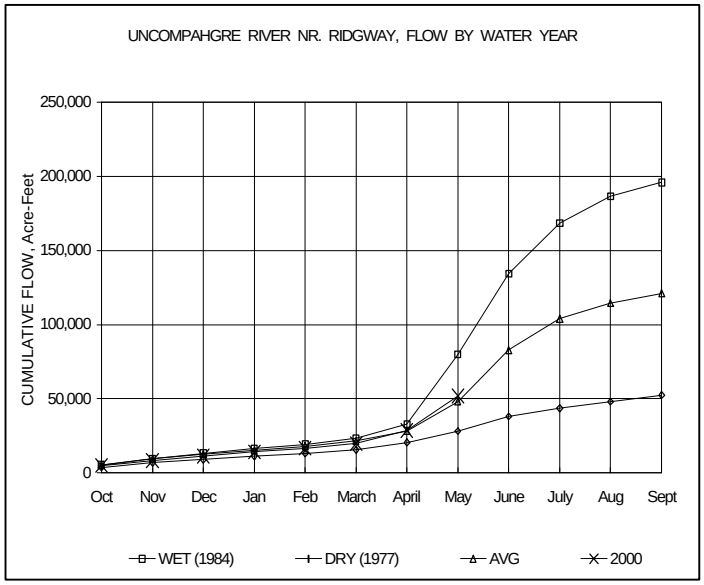
Administrative/Management Concerns

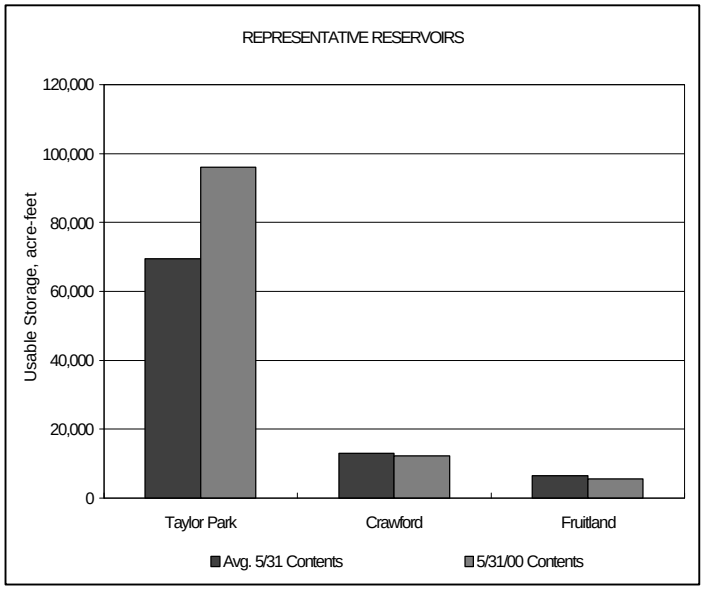
At least 5 of the tributaries of the Uncompahgre River are on call at the present time. Of the 2 remaining creeks, 1 has enough water to fill the earliest priority and the other can satisfy the earliest and a portion of the second priority.

Public Use Impacts

Rafting on the Taylor and Gunnison Rivers has been perfect due to releases from Taylor Reservoir and runoff coming down the East River. The Lake Fork has been prime recreational conditions as well. Blue Mesa Reservoir is up and boaters filled the lake over the Memorial Day weekend. It appears that many recreational aspects aren't suffering but other areas are feeling the effects of the weather.







Basinwide Conditions Assessment

The SWSI value of –0.2 indicates that for May the basin water supplies were near normal. The Natural Resources Conservation Service reports that June 1 snowpack is 10% of normal. Flow at the gaging station Colorado River near Dotsero was 4,861 cfs, as compared to the long-term average of 4,509 cfs. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 144% of normal as of the end of May.

Outlook

Above average temperature and below average precipitation are forecasted for June. Late May saw record breaking temperatures on the West Slope.

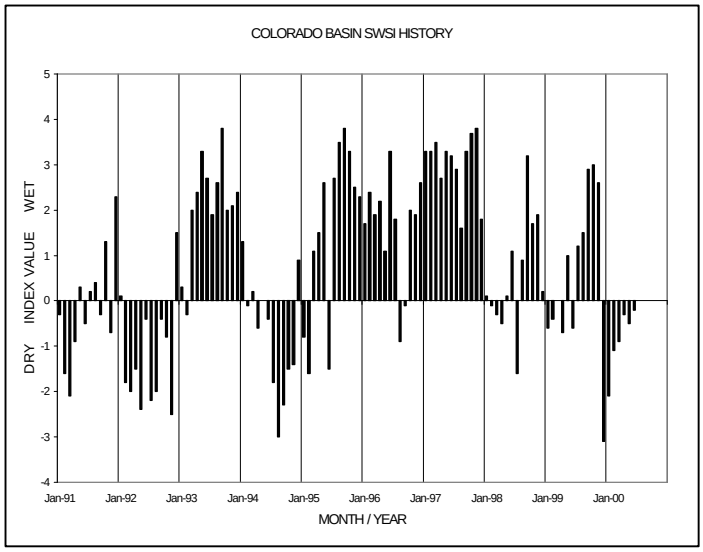
Administrative/Management Concerns

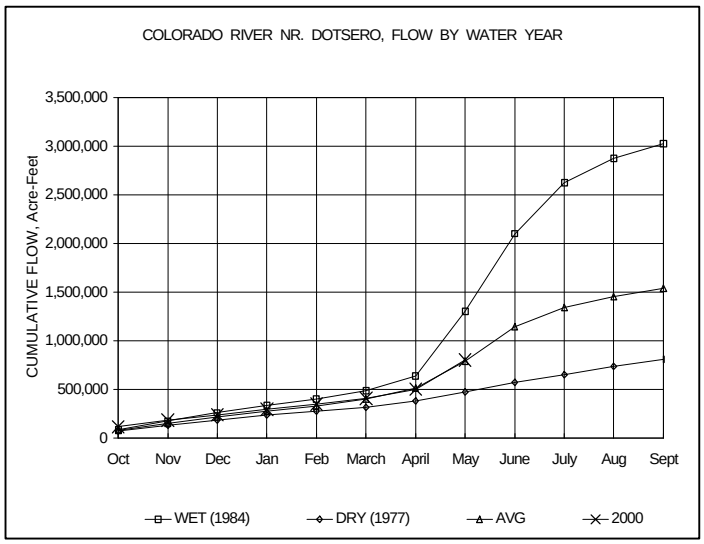
As of the beginning of June there is no call on the main stem of the Colorado River.

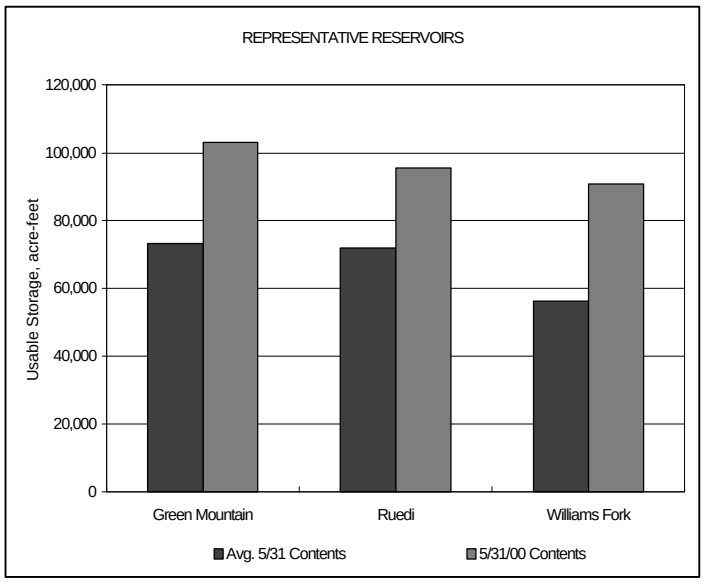
Although flows are dropping steadily, reservoirs are basically full for later releases. There were no coordinated reservoir operation releases this spring.

Public Use Impacts

Mesa, Garfield, and Montrose counties have instituted fire bans beginning in June.



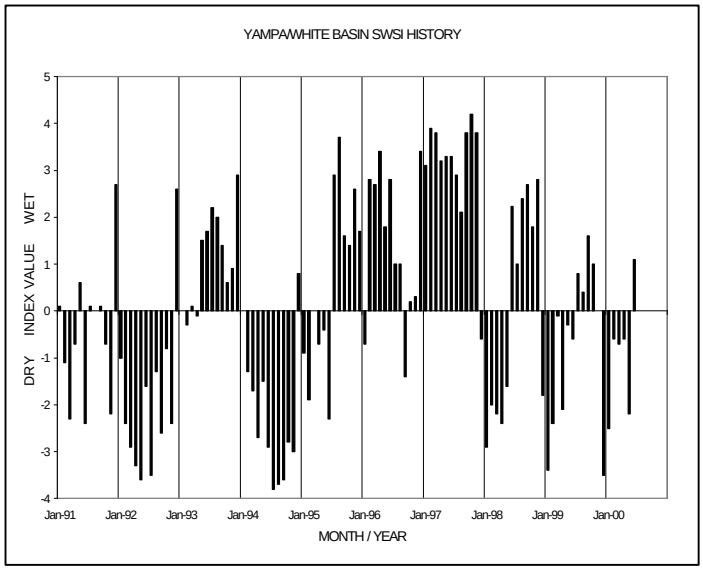




Basinwide Conditions Assessment

The SWSI value of 1.1 indicates that for May the basin water supplies were slightly above normal. The Natural Resources Conservation Service reports that June 1 snowpack is 29% of normal. Flow at the gaging station Yampa River at Steamboat was 2,010 cfs, as compared to the long-term average of 1,600 cfs.

Temperatures in May were well above average for most of the basin, and precipitation was below normal for the month in many areas, continuing the trend that started mid-winter. With the warm temperatures, runoff began early and by the end of the month most of the major rivers and their tributaries had peaked for the year. Current snowtel readings show little if any snowpack left at most sites. Several side tributaries went under administration mid-May. Most reservoirs were able to fill during the peak of the runoff.



Outlook

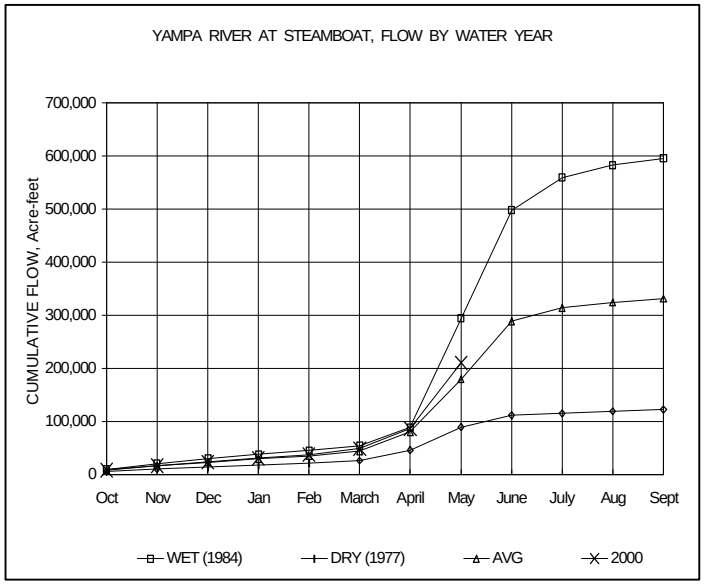
After peaking at the end of May, streams are expected to drop rapidly as the last of the high elevation snowpack melts. Flows are currently at levels normally seen two to three weeks later in the season. Long range forecasts call for warmer than normal temperatures with below normal precipitation.

Administrative/Management Concerns

The early runoff coupled with the low snowpack remaining at high elevation could contribute to water shortages on many of the tributaries to the main rivers. Administration may extend throughout the entire irrigation season unless precipitation amounts return to normal levels.

Public Use Impacts

While streams and rivers are near normal levels, they should be dropping quickly. Many streams may experience lower than normal flows caused by lower base flows and increased irrigation demands.



Basinwide Conditions Assessment

The SWSI value of 0.2 indicates that for May the basin water supplies were near normal. The Natural Resources Conservation Service reports that as of June 1 there is no snowpack remaining at the measurement sites. Flow at the gaging station Animas River near Durango was 2,169 cfs, as compared to the long-term average of 2,195 cfs. Storage in McPhee, Vallecito, and Lemon reservoirs totaled 119% of normal as of the end of May.

May was unusually dry and warm. Durango received only 15% of normal precipitation, which was typical for the basin. Durango's water year precipitation total is 8.19 inches, 65% of normal. Temperatures were about 6^{o} higher than normal, continuing last month's trend.

May 5 was the high day for flows at most of the river gaging sites. Later in the month higher elevation snow melt caused the Animas River to reach a peak flow of 4,000 cfs.

Outlook

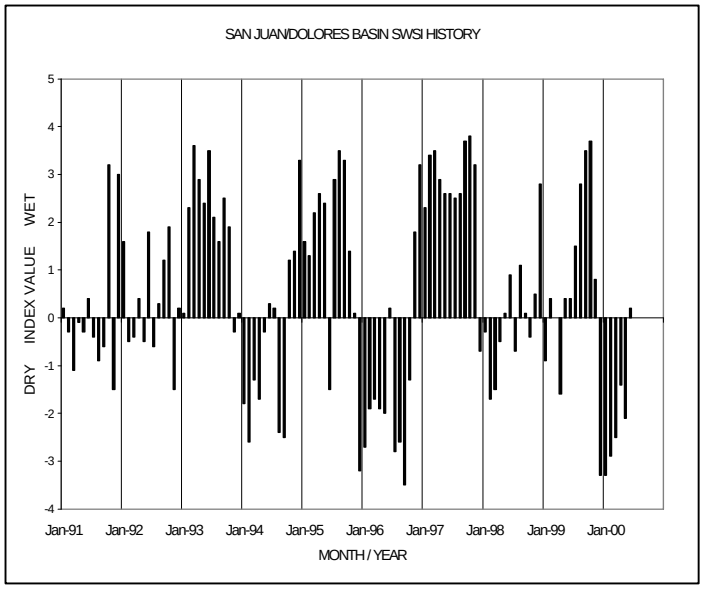
The outlook for June is not good as it is the driest month. However, it appears that thunderstorm cells may have been starting to form in the afternoons. This may lead to p.m. showers which usually do not occur until July.

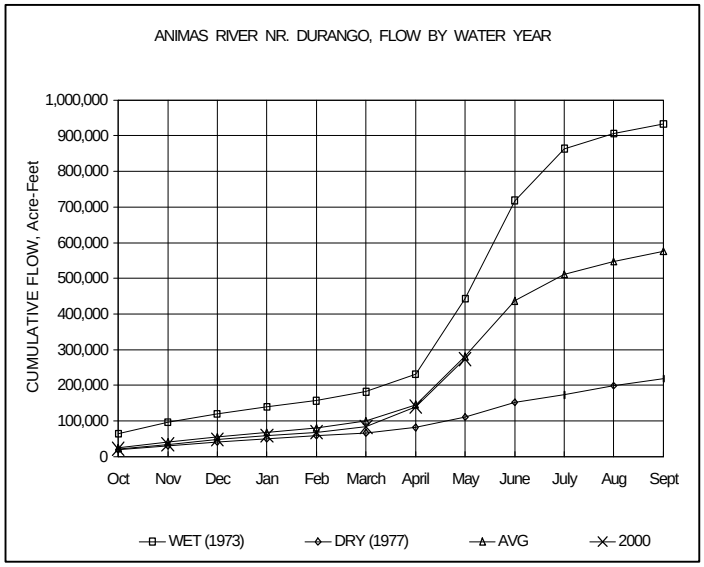
Administrative/Management Concerns

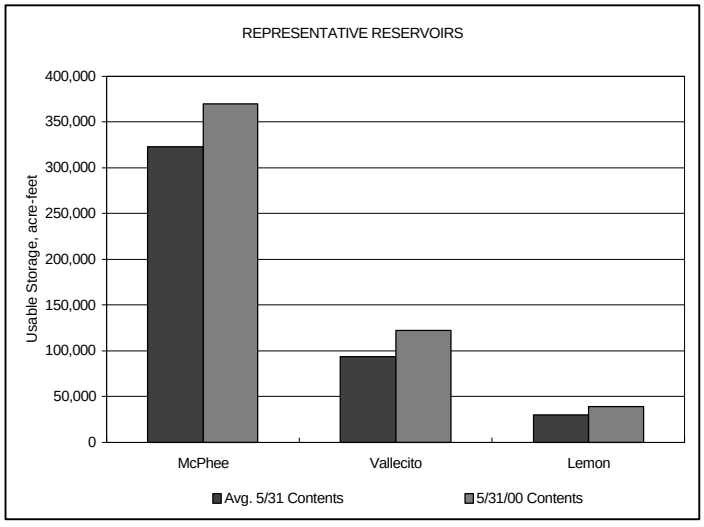
Not all reservoirs filled because precautionary releases to avoid spills resulted in too much drawdown to recover. Heavy irrigation demand pulled the majority of the inflows in the later part of the month. Reservoir storage levels remained above average across the basin on June 1. Below McPhee Reservoir releases were cut back by Memorial day, and flows continued to drop on streams across the basin.

Public Use Impacts

Rafting the high water occurred while it was available.







OFFICE OF THE STATE ENGINEER
COLORADO DIVISION OF WATER RESOURCES
DEPARTMENT OF NATURAL RESOURCES
1313 SHERMAN STREET ROOM 818
DENVER CO 80203