



United States Department of Agriculture
 Farm and Foreign Agricultural Services
 Risk Management Agency

May 9, 2003

INFORMATIONAL MEMORANDUM

TO: Ross J. Davidson, Jr.
 Administrator

FROM: Rebecca Davis /s/ Rebecca Davis
 Director

SUBJECT: Updated Regional Irrigation Assessment
 Topeka Regional Office

This irrigation assessment reflects updates in Colorado conditions.

In accordance with the Loss Adjustment Manual Standards Handbook (FCIC-25010), which directs the Regional Office (RO) to provide a regional assessment in order to identify areas and water districts where inadequate irrigation water supply is suspected, the following is the list of counties from the Topeka RO:

Kansas:

As of January 14, 2003, the following irrigation districts are expected to deliver less than their normal supply. The irrigation districts and their expected delivery amounts along with the percentage of the 2000-year delivery are as follows:

<u>Irr District</u>	<u>Est. Farm Delivery (Ac. Inches as of 01/14/03)</u>	<u>% of 2000-year Delivery</u>
Almena	4.5"	90%
Kansas-Bostwick	7.5"	50%
Kirwin	11"	92%
Webster	10"	83%

The counties affected by the above allocations are: **Norton, Phillips, Osborne, Republic, Rooks, and Smith.**



Topeka Regional Office • 3401 SW Van Buren • Topeka, KS 66611-2227
 Telephone (785) 266-0248 • Fax (785) 266-2487
 The Risk Management Agency Administers and Oversees
 All Programs Authorized Under the Federal Crop Insurance Corporation
 An Equal Opportunity Employer

Nebraska:**Southwest and Central and Sheridan County, Nebraska:**

The following information was received from the Bureau of Reclamation in McCook, Nebraska. The irrigation districts with estimated water allocations are shown below, with the percent change based on a comparison to the 2000-year delivery (as this year was the last year a normal supply was delivered).

<u>Irr District</u>	<u>Est. Farm Delivery (Ac.Inches as of 01/14/03)</u>	<u>% of 2000-Year Delivery</u>
Mirage Flats	4.0"	45%
Frenchman Valley and H & RW	1.0"	20%
Frenchman-Cambridge Meeker, Red Willow & Bartley	2.5"	22%
Cambridge Canal	7.0"	70%
Bostwick In Nebraska	6.0"	49%

Counties affected by the above allocations are **Chase, Dundy, Franklin, Furnas, Harlan, Hayes, Hitchcock, Nuckolls, Red Willow, Sheridan, and Webster.**

The **Central Power Irrigation District** that stores water in Lake McConaughy has indicated that it will provide a full supply (up to 18 acre/inches) to its irrigators. However, it may not be able to supply additional water as it has in past years. This could also have an effect on the **Nebraska Public Power District** as it has a contract with Central Power to supply additional water for its district if needed. Nebraska Public Power has indicated that its current storage is up to normal and it should be able to provide sufficient water if precipitation from now through the growing season is average. The **Paxton-Hershey, Suburban, Keith-Lincoln, Lisco, and Platte Valley Districts** also may receive water from Lake McConaughy as long as the water level in the lake is at 800,000 acre/ft or above on April 15th of the irrigation season. We have been informed that the lake level has reached the 800,000 acre/ft level and these districts will be receiving their normal allotment from Lake McConaughy. These districts also have water rights on the Platte River and some have rights to water stored in other reservoirs.

Counties affected by these irrigation districts are **Buffalo, Dawson, Gosper, Phelps, Kearney, and Lincoln.**

Nebraska Panhandle:

Currently the surface water irrigation supply for the Pathfinder Irrigation District, which serves over 100,000 acres of irrigated crops, has a carryover water supply of 100,000 ac. ft. The normal supply at this time of the year is 600,000 ac. ft. With the supply this low, the outlook for a normal irrigation supply is poor. Snow pack is currently 87% of normal giving some hope for close to normal runoff but the dry conditions over the past 2 years have made the runoff estimate questionable with the current estimate at 30%. There are currently no restrictions announced for this district. This is also the case for the Farmer's Irrigation District and the Gering-Ft. Laramie Irrigation District. Consensus is that without higher than normal runoff from spring precipitation, there will be inadequate water available for producers in many of these areas.

Counties affected include **Banner, Cheyenne, Deuel, Kimball, Scottsbluff, and Morrill.**

Colorado :**South Platte Basin (Northeast Colorado)**

The South Platte irrigation district covering all of North East Colorado is expected to have some irrigation water shortages but the situation has much improved from a month earlier. Surface Water Supply Index (SWSI) value was reported at -1.4 at the end of March. A SWSI value below 0 is drier than normal and a -4.0 is the most severe drought. Reservoir storage, the major component in computing the SWSI value, was 56% of normal as of the end of March. The major region wide snowstorm the last part of March significantly improved the snowpack, raising it above average for the first time in several years. The Natural Resources Conservation Service reported that April 1 snowpack is 114% of normal. However, even with the additional snow and immediate runoff, it is not anticipated that many of the mainstem reservoirs will fill even if there are very wet conditions this spring due to the fact they were so low at the end of last irrigation season.

Arkansas Basin (Southeast Colorado):

The Arkansas basin has a Surface Water Supply Index (SWSI) value of -0.4, which is a significant improvement from a month earlier, and indicates for March the basin water supplies were normal. The Natural Resources Conservation Service reported that April 1 snowpack is 100% of normal. Storage in the Turquoise, Twin Lakes, Pueblo and John Martin reservoirs totaled 43% of normal as of the end of March. Improved snowpack conditions raised some hopes for better supply for surface diversions. There is a management concern that although streamflow may improve, the availability of replacement water for well augmentation is minimal. Most of the major well associations have augmentation plans for the beginning of the year with zero or minimal approved agricultural well pumping.

Rio Grande Basin (The San Luis Valley):

The Rio Grande basin has a SWSI value of -1.1 , which indicates for March the basin water supplies were below normal. February 1 snow pack is reported at 76% of normal. The outlook is better than 2002, but grim for the majority of the upper Rio Grande Basin. Current NRCS streamflow forecasts predict the April through September runoff to be only 54% of average on the Rio Grande near Del Norte and 64% of average for the Conejos near Mogote. Other streams in the basin are forecast as low as 50% of normal for the Alamosa River and as high as 117% of normal for Culebra Creek near San Luis. In general, snowpack at lower elevations within the basin is very poor. The western portion of the basin has some of the poorest snowpack conditions in the entire state.

Without significant rainfall during the irrigation season, many of the sub-basins will experience conditions only slightly better than last year's colossal drought. The below normal reservoir storage levels will compound the water availability problem. Soil moisture conditions are poor in most locations around the basin. Based on the current forecast, there is little or no curtailment of water rights on the Rio Grande and Conejos River this irrigation season. However, due to the lack of available streamflow, many area ditches will not come into priority this season.

Gunnison Basin (West Central Colorado):

The Gunnison Basin had a Surface Water Supply Index (SWSI) value of -0.5 at the end of March, which indicated basin water supplies, were near normal. The NRCS reported that April 1 snowpack was 86% of normal. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 63% of normal as of the end of March. This is a critical time for the basin as many water users are preparing to start diversions for irrigation and very little water is available. With the low flows, very little is going into storage in the various reservoirs. The Gunnison Basin avoided a water call by the Senior Colorado River Conservancy District by brokering a deal to pay for lost power revenues by the Redlands Power Authority. This allowed reservoirs to store throughout the winter when they would otherwise be called out by the 1912 Redlands right.

Colorado Basin (Northwest Colorado):

The Colorado Basin had a SWSI value of $+0.7$ at the end of March, which indicated that for March the basin water supplies were normal. Actual conditions, however, are poorer than this index represents due to the previous year's drought and resulting dry soil moisture profile. The NRCS reported snow pack was 101% of normal. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 50% of normal. March precipitation was approximately 20% above average for the entire Colorado Basin, bringing snowpack up to average conditions by April 1, the first time that has occurred in 4 years. Streamflow forecasts improved during March to 90% of average basin-wide.

Yampa/White Basin (Northwest Colorado):

The Yampa/White basin has a SWSI value of -1.5 , which indicated for March the basin water supplies were below normal. The NRCS reported that April 1 snowpack was 91% of normal. March continued to bring much needed moisture to the basin. Basin-wide, precipitation was 105% of average for the month. The April 1 streamflow forecasts reported by the NRCS were 74% of average for the North Platte near Northgate, 83% of average for the Yampa River near Maybell, 79% of average on the Little Snake near Dixon, and 62% for the White River near Meeker. If the current weather pattern continues and spring precipitation is near normal, the runoff season should be much better than conditions last year.

San Juan/Dolores Basin (Southwest Colorado):

The San Juan/Delores Basin had a SWSI value of -1.8 at the end of March indicating water supplies were below normal. Snow pack was 75% of normal as of the end of March. The best snowpack recordings were found up the Dolores and in the La Platas. Snowpack was very poor in the east San Juans, including Wolf Creek Pass. River flows remained well below average throughout the month and remained well below average at about 60%. Reservoir carryover is very poor especially at McPhee and Lemon Reservoir. Red Mesa Ward Reservoir and the Pagosa area reservoirs managed to secure significant fills during the winter.

For all practical purposes, **all counties** in Colorado will be affected with regard to these potential water shortages.

If you have any questions or need further assistance, please contact our office.