

# United States Department of Agriculture

Risk Management Agency

Topeka Regional Office

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## Attachment 3: 2007 Topeka Regional Irrigation Assessment

In accordance with the LAM, (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:

Originally announced on January 10, and continuing through May 23 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 normal supply are as follows:

Irr District	** Est. Farm Delivery (Ac. Inches as of 04/11/07)	* % of Normal Supply
Almena	5.0"	100%
Kansas-Bostwick Upper Courtlan Lower Courtlan		33 – 47% 40%
Kirwin	9.0"	75%
Webster	3.0"	25%

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

The crops affected are Barley, Corn, Grain Sorghum, Soybeans, Oats, and Sunflowers.

#### 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 a full supply.



Irr District	** Est. Farm Delivery (Ac.Inches as of 04/11/2006)	* % of Normal Supply
Mirage Flats	4.0"	67%
Frenchman Valley and H & R	RW .5"	13%
Frenchman-Cambridge Meeker, Red Willow of Bartley	& 5.0"	42%
Cambridge Canal	8.0"	67%
Bostwick In Nebraska	5.0 – 7.0"	42 - 58%

<sup>\*</sup> Based on figures for 2000 Crop Year. Subject to change based on most probable inflows during Insurance period.

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

### Central Nebraska Public Power and Irrigation and Nebraska Public Power Districts:

The Central Nebraska Public Power and Irrigation District that stores water in Lake McConaughy has announced that they be providing a reduced supply of 6.7 acre-inches to its irrigators. This is down from their normal supply of 18 acre-inches. They indicated they will also have a shorter irrigation season. They will begin the season on June 26<sup>th</sup> and end on August 21st. There will be 4 runs instead of the normal 6 runs with half the normal volume per run. The districts feels, however, that by allowing irrigators to transfer surface water shares in conjunction with use of supplemental wells, that most acreage could be properly irrigated. It is important to emphasize that each irrigators water situation could be different depending on the availability of supplemental irrigation sources.

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<sup>\*\*</sup> These estimates do not reflect the possible sale of water to the State of Nebraska for delivery to the State of Kansas.

supply of storage in Lake McConaughy, which is 125,000 acre ft. Assuming normal stream flows, this will be adequate for a full supply of irrigation water. These irrigation districts rely on stored water for only about 1/3 of their irrigation water needs.

Counties affected by the above irrigation districts are **Buffalo**, **Deuel**, **Dawson**, **Garden**, **Gosper**, **Phelps**, **Kearney**, and **Lincoln**.

#### Nebraska Panhandle:

Currently the outlook for water supplies for Irrigation Districts with contracts with the Bureau of Reclamation in reservoirs other than Glendo look fair. The North Platte storage ownership for is currently at 101%. Districts with contracts with Glendo Reservoir (Mitchell, Bridgeport and Enterprise) are very uncertain at this time. Their ownership is 20% of normal. Storage for the Mitchell District is currently at zero. They depend a great deal on natural stream flow which is much harder to predict. The timing of the snowmelt will be critical as to the amount of water available.

The Pumpkin Creek Groundwater Management Sub-Area will have the same allocation as last year which was 14" per acre.

Counties affected include Banner, Scotts Bluff, and Morrill.

The crops that are affected in Nebraska are Barley, Corn, Dry Beans, Grain Sorghum, Oats, Potatoes, Soybeans, Sugar Beets, Sunflowers.

#### Colorado:

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

Surface Water Supply Index (SWSI) value was reported at +1.1 at the end of April. This SWSI value would indicate that water supplies are above normal. Cumulative storage in the major plains reservoirs: Julesburg, North Sterling and Prewitt, is at 101% of capacity. Cululative storage in the major upper-basin reservoirs: Cheesman, Eleven Mile, Spinney and Antero, is at 95% of capacity. The Natural Resources Conservation Service reported that April 1 snow pack is 101% of normal.

At the end of April, all plains reservoirs on the South Platte have filled.

The only tributary basin with significantly below average flows and storage is the Poudre Basin. This may have a significant impact on irrigation as the Poudre is by far the largest tributary basin in respect to agriculture.

### **Arkansas Basin (Southeast Colorado):**

The SWSI value for the month of April was -0.8. The Natural Resources Conservation Service reported that as of May 1 snow pack is 90% of normal. Storage in Turquoise, Twin Lakes, Pueblo and John Martin reservoirs total 101% of normal as of May 1.

Total storage in John Martin Reservoir between November 1, 2006 and April 30, 2007 distributed into accounts was approximately a net of 52,790 acre-feet, a significant improvement from the same reporting period last year, during which the storage total was less than 20,000 acre-feet.

Preliminary compliance model results produced by Colorado experts indicate that the well associations in the Arkansas Basin met their requirements for replacement water to the Arkansas River and the Offset Account in John Martin Reservoir. Kansas experts have until May 15, 2007 to review the model results.

## **Rio Grande Basin (The San Luis Valley):**

The Rio Grande basin SWSI value of 0.0 indicates that for April, the basin water supplies were normal. May 1 snow pack is reported at 74% of normal. Storage in Platoro, Rio Grande, and Santa Maria reservoirs totaled 95% as of May 1. NRCS forecasts are predicting April through September streamflows to be 73% of average on the Rio Grande near Del Norte and 72% of average for the Conejos near Mogote.

Current projections indicate that Colorado's obligation to downstream states under the Rio Grande Compact will be met without having to curtail Rio Grande or Conejos River surface water users this summer.

### **Gunnison Basin (West Central Colorado):**

The Gunnison Basin Surface Water Supply Index (SWSI) value of -1.1 at the end of April indicates basin water supplies were below normal. The NRCS reported that April 1 snow pack was 52% of normal. Storage in Taylor Park, Crawford, and Fruitland reservoirs totaled 143% of normal as of May 1. The May 1 NRCS forecasted runoffs for the Gunnison basin are poor. There was little or no improvement during April, typically a very snowy month. Most of the major rivers in the Gunnison basin are expected to produce 55 to 70% of normal runoff.

#### **Colorado Basin (Northwest Colorado):**

The Colorado Basin had a SWSI value of -0.1, which indicated that, for April the basin water supplies were slightly below normal. The NRCS reported April 1 snow pack was 67% of normal. Storage in Green Mountain, Ruedi, and Williams Fork reservoirs totaled 142% of normal as of the end of April.

## Yampa/White Basin (Northwest Colorado):

The Yampa/White Basin SWSI value of -3.0, indicates that for April the basin water supplies were below normal. The NRCS reported that May 1 snow pack for the Yampa Basin was 37% of average, the White River Basins was 57% of average and for the North Platte River Basin it was 64% of average. The May 1<sup>st</sup> runoff forecast prepared by the Natural Resources Conservation Service for May through July is 67% for the North Platte River near Northgate, 46% for the Yampa River near Maybell, 40% for the Little Snake River near Lily and 52% for the White River near Meeker.

## San Juan/Dolores Basin (Southwest Colorado):

The San Juan/Delores Basin had a SWSI value of -1.0 at the end of April indicating water supplies were below normal. Snow pack was 53% of normal as of May 1. Storage as a percent of normal was 118% for McPhee, 163% for Vallecito and 163% for Lemon reservoirs as of the end of March. Higher than normal temperatures has taken its toll on snow pack.

The counties affected by potential irrigation water shortages at this time in the San Juan/Dolores, Rio Grande and Arkansas Basins are:

The counties in the San Juan/Dolores are **Dolores, Montezuma, LaPlata and San Miguel, Bent, Crowley, Otero, Prowers, and Pueblo** in the Arkansas River Basin and **Alamosa, Conejos, Costilla, Rio Grande and Saguache** in the Rio Grande Basin.

The counties affected by potential irrigation water shortages at this time in the South Platte and Gunnison Basins are:

The counties in the South Platte are Adams, Arapahoe, Boulder, Larimer, Logan, Morgan, Phillips, Sedgwick, Washington, Weld, and Yuma; and Delta, Montrose and Mesa in the Gunnison Basin.

The counties affected by potential irrigation water shortages in the Yampa/White basin are:

### Moffat, Rio Blanco and Routt

The crops that are affected in Colorado are Apples, Peaches, Barley, Corn, Sweet Corn, Dry Beans, Grain Sorghum, Grapes, Oats, Onions, Potatoes, Soybeans, Sorghum Silage, Sugar Beets, Sunflowers, and Wheat.

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