



Attachment 4: 2007 Oklahoma City Region Irrigation Assessment

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Department of
Agriculture

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Management
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As required by the LAM, FCIC-25010 at section 6, Paragraph 40, part E., Regional Irrigation Assessments, the following information reflects conditions as of May 25, 2007. Conditions could improve before the actual planting and acreage reporting dates in any of the areas identified in this report. Most Texas and New Mexico spring crop acreage reports occur from July 1 – July 30.

Conchas Reservoir: (Quay County New Mexico) –

Conchas Reservoir will **remain** on our list of areas suspect of water shortages for the 2007 crop year. Crops for which insurance is provided within the 41,000 acre crop land district include barley, corn, cotton, grain sorghum and wheat.

Last year due to the lack of any appreciable mountain snow pack and the absence of any winter or spring recharge, the Conservancy had to cut back to 1/3 of a normal allocation (6 inches) as an initial allocation for the entire crop year. In order to allow for a full water allocation of 18 inches, at the current delivery efficiency rate of 30% – 40% the water elevation would have to be at 4,191 ft. (159,094 ac. ft.). The water elevation in the Reservoir as of May 24, 2007, was 4,178 ft. (149,183 ac. ft.). When the water elevation reaches 4,162 ft (83,206 ac. ft.) there is not enough head pressure in the reservoir to push the water the distance required to reach the delivery points within the water district at which time water will no longer be available for irrigation.

I. Current assessment:

The amount of water available this year is much the same as it was last year at this time. The lack of any appreciable mountain snow pack in the water shed and the absence of any winter or spring recharge has caused the district to again cut back to 1/3 of a normal allocation (6 inches) as an initial allocation for the current crop year, same as last year. They expect to be able to release an additional 3 inches later in the year for a total of 9 inches for the crop year, about ½ of a normal allocation, also the same as last year. However, the Conservancy meets monthly to re-evaluate the water situation and will notify water users accordingly. The Corps of Engineers web-site for monitoring water levels in the Lake is; <http://www.spa.usace.army.mil/wc/adbb/default.htm>

Elephant Butte Reservoir: (New Mexico - Dona Ana County; Texas - El Paso and Hudspeth Counties) - Elephant Butte Reservoir provides water for irrigation districts in Dona Ana County New Mexico and the adjoining counties of El Paso and Hudspeth in Texas. The principal source of water for Elephant Butte Reservoir comes from snow-pack runoff from the southern Rocky Mountains in Colorado and New Mexico. Winter snow- pack normally occurs from November – January. Reservoir recharge from runoff



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occurs from March – May. A normal run-off would contribute about 937,000 acre-feet of water annually and it is usually the first of June before any of that runoff actually reaches Elephant Butte Reservoir.

Dona Ana County New Mexico:

I. Current Assessment:

The reservoir currently contains about 625,790 ac. ft. of water as of April 19, 2007 compared to 437,000 ac. ft. this time last year. The NRCS April forecast predicts the March – July runoff into Elephant Butte of 265,000 ac-ft or 46% of normal. Last year, the initial allocation was set at 14 inches. This year the initial allocation is being set at 2 acre feet, a normal allocation. Crops grown within the region include corn, cotton, grain sorghum, pecans and wheat.

El Paso County Texas:

The El Paso County Water District provides irrigation to approximately 69,000 acres in El Paso County. Crops grown within the district include cotton, grain sorghum, onions, and pecans. The districts normal allotment from Elephant Butte is around 376,000 acre-feet with a normal allocation of 48 acre-inches.

Current assessment: For the 2007 crop year, the water district is being allotted approximately 330,000 acre feet of water with an initial allocation of 42 acre-inches. Last year the District was allotted about 187,500 acre-feet of water with an initial allocation of only 24 acre-inches.

The District's Board of Directors meets the second week of each month (May 10th) to re-evaluate current water allocation/allotments. Additional allotments could be instituted based on the past month's water usage and possible increased inflows into Elephant Butte. Mountain snow pack is currently at about 65% of normal and conditions currently look favorable for some additional inflow and subsequent additional allocation later in the year but that will not be known until the snow melt actually reaches the reservoir typically from May through July.

Hudspeth County Texas:

Hudspeth County will **remain** on our watch list for the 2007 crop year and will be re-evaluated in 2008. The only crop grown in Hudspeth County for which insurance is provided is cotton.

We were unable to obtain an update from HCCRD for the 2007 crop year at the time of this issuance. However, HCCRD issues monthly advisories to water users as a method of notification for any changes to the current status of water in the district. Insured producers should be able to provide their agents with a recent copy of their last water advisory prior to planting. Jake Cline is the General Manager of the water district and can be reached at (915) 569-3815.

Last year they anticipated they would be able to provide one (1) inch or about 25 per cent of the water they would receive in a normal irrigation season, and had notified all irrigators in the district by letter. Individually owned wells may still provide a reliable source of water in the upper one-third of the county. But, due to the high salinity content of groundwater in this area the water should be tested and deemed appropriate for crop use before applying it to insured crops.

Red Bluff Reservoir: (Reeves, Pecos, and Ward Counties, Texas) –

For the 2007 crop year the water district will maintain last year's **removal** status but will be reevaluated for 2008 or until notified otherwise.

Crops being grown within the district include barley, oats, wheat, cotton, grain sorghum, grapes, onions, and pecans. As of May 24th, the reservoir had about 102,000 acre-feet in storage compared to 128,000 acre-feet last year. Letters were issued to water users within the district in March notifying them of the initial allocation for 20,000 acre-feet of water and that they were to notify the water district by April 15th of the amount of water they would be purchasing for the remainder of the season. Timely rains have reduced the need for pre-plant irrigation within much of the district and the water master expects to be able to release about 50,000 acre-feet of water for the year, a near normal allotment. Red Bluff does not anticipate a water shortage for this year

Ogallala Aquifer: (Andrews, Gaines, and Yoakum Counties in Texas and Harmon County, Oklahoma)

For the 2007 crop year, we are adding Harmon County Oklahoma to the list of counties suspect of having inadequate irrigation ground water supply.

Andrews, Gaines, and Yoakum Counties in Texas have previously been reported as counties suspected of having inadequate irrigation water supply. Crops grown in this area for which insurance is provided are cotton, grain sorghum, peanuts, and wheat. All of the water used for irrigation in these counties comes from the Ogallala Aquifer, one of the largest aquifer systems in the world, extending from southern South Dakota and eastern Wyoming through Colorado, Nebraska, Kansas, Oklahoma, New Mexico, and Texas.

All of these counties are at the southern edge of this aquifer and/or changes in climatic conditions over geologic time have resulted in changes in erosion patterns within the aquifer itself, causing the Ogallala to be cut off from its original supply of water and formation materials. The southern portion of the formation in Texas and New Mexico is now a plateau, cut off on all sides. The saturated thickness of the aquifer does vary throughout the formation and can be as shallow as 20 feet in some areas.

I. Current Assessment:

Some but not all of the wells pumping water for irrigation in this area of the aquifer have experienced water supply problems in various degrees for the past several years. Unlike surface water situations where water district allocations form the basis for the amount of water available for the season, groundwater shortages tend to be more dependent upon individual well location and pumping ability as a basis for water availability.

As such, adequacy of water determinations in these situations must be made on an individual, case by case basis. Please refer to the Irrigated Practice Guidelines in the LAM, FCIC –25010 as to adequacy of water for irrigation determinations for policyholders in these three counties who experienced water availability or delivery problems last year.