TEXAS AGRILIFE RESEARCH
CENTER AT EL PASO

"Drought Watch on the Rio Grande" – September 2, 2011 Press Release & Graphs

Rio Grande Reservoirs 90% Empty – Labor Day Water Level 96 feet Below Dam Spillway

The prolonged and continuing extreme drought conditions in the southwest and Rio Grande basin have resulted in very low river flows and reservoir water levels. Lorenzo Arriaga at the U.S. Bureau of Reclamation El Paso Office estimates that over the Labor Day weekend Elephant Butte reservoir will be more than 90% empty with just 195,000 acre-feet of water in storage. This leaves water levels 96 feet below the dam spillway. By comparison, last year on Labor Day the reservoir held 376,930 acre-feet and was 76.6 feet below the spillway, a water level almost 20 feet higher than this year.

Currently the combined water storage in both Elephant Butte and Caballo reservoirs is 202,000 acre-feet or just 9.6% of the 2.23 million acre-foot capacity. Of this amount, 189,000 acre-feet or 88% of the amount in storage is Rio Grande Compact or San Juan-Chama "Credit Water" which is owned by upstream users and is not available for use in southern New Mexico or Texas. Of the amount of water available this year to Rio Grande Project users in southern New Mexico, Far West Texas and Mexico the water allocation is 42.75% of a full supply. However, the amount of water available to each of the three irrigation districts varies widely from almost a full supply to very little due to different amounts of conserved water carried over from last year, pumping of groundwater and use of treated reclaimed water. Releases will end when the reservoir gates close early September.

Agriculture has had the greatest impact from the extreme drought conditions. Agricultural producers across the state of Texas are experiencing the costliest drought on record with total losses of $5.2 billion to date according to Texas AgriLife economists. Locally, urban users have not been impacted by the Rio Grande surface water supply shortage as much as agriculture because of groundwater supplies available to El Paso Water Utilities and other cities in the region. But the fresh (drinking quality) groundwater supplies recharge very slowly and are declining.

The Rio Grande basin and entire southwest are experiencing record breaking heat and extreme drought conditions. Most of the inflow to the Rio Grande Project reservoirs is from spring-time runoff from mountain snowpack in southern Colorado and northern New Mexico. However, this year's inflow to Elephant Butte reservoir was just 14.8% of the 30-year March-July average and conditions have not improved. Dave Novlan, El Paso Office Climatologist, NOAA-National Weather Service reports that the first six months of 2011 in El Paso was the driest on record with 118 days of no rain. And, this summer there have been 49 days over 100 degrees, the third highest on record with August the hottest month ever. These conditions are not expected to improve soon. The Climate Prediction Center three-month forecast for the Rio Grande basin calls for continuing above average temperatures, below average chances of precipitation, extreme drought conditions to persist and for the dry La Nina weather pattern (third strongest since 1950) to continue, possibly well into next year. This forecast is especially worrisome because with the low amounts of water in the reservoirs we rely on the coming year's snowpack in the mountains for our next year's surface water supply. There is hope for better conditions but over the last 15 years there have only been three years with above average spring runoff to replenish the reservoirs (1997, 2005 and 2008).

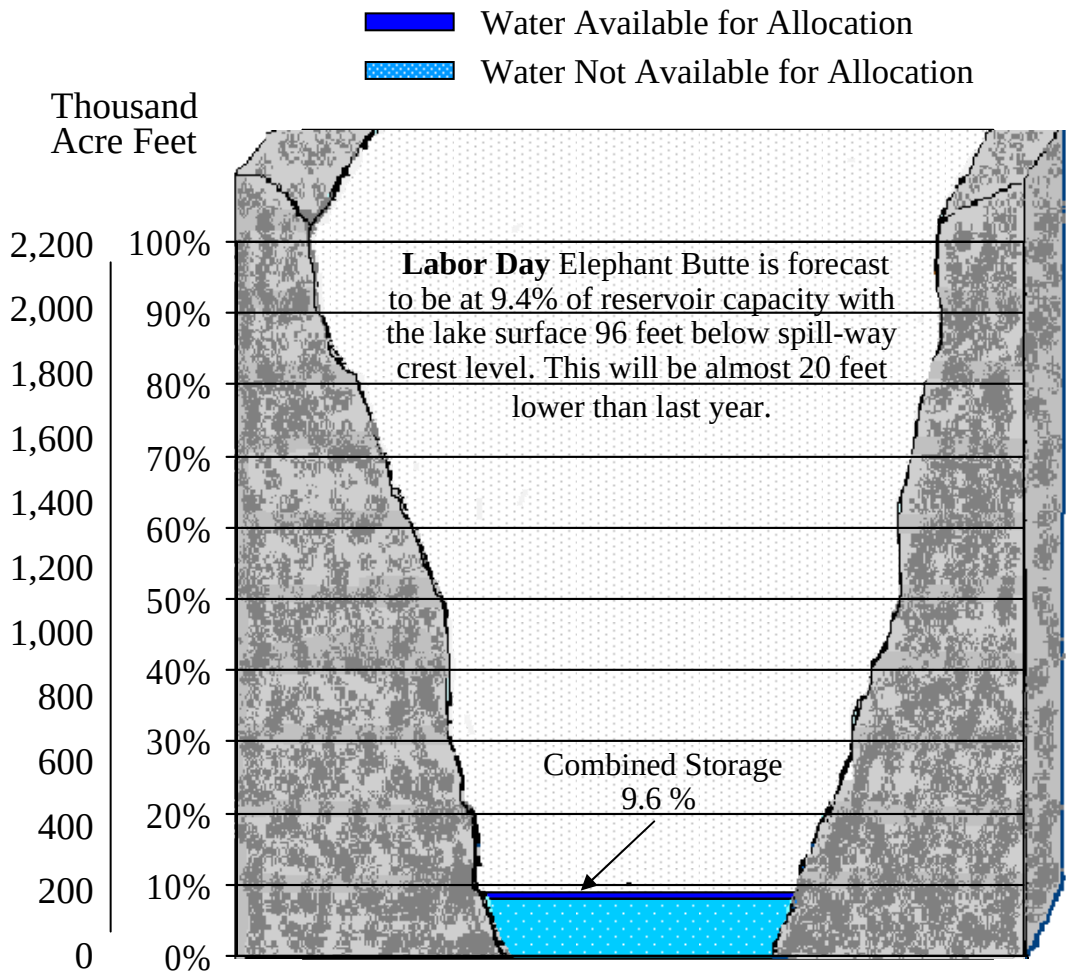
Drought Watch on the Rio Grande is provided by the Texas AgriLife Research Center at El Paso and Texas Water Resources Institute, The Texas A&M University System, with support from the USDA-NIFA Rio Grande Basin Initiative, in collaboration with the United States Bureau of Reclamation El Paso Field Office.
E-mail or call to receive future issues of Drought Watch.

Ari M. Michelsen, Ph.D., Research Director
Texas AgriLife Research Center at El Paso
The Texas A&M University System
a-michelsen@tamu.edu / 915-859-9111

Filiberto Cortez, Division Manager
El Paso Field Office
U.S. Bureau of Reclamation
fcortez@uc.usbr.gov / 915-534-6300

Drought Watch on the Rio Grande
Surface Water Supply Conditions September 2, 2011

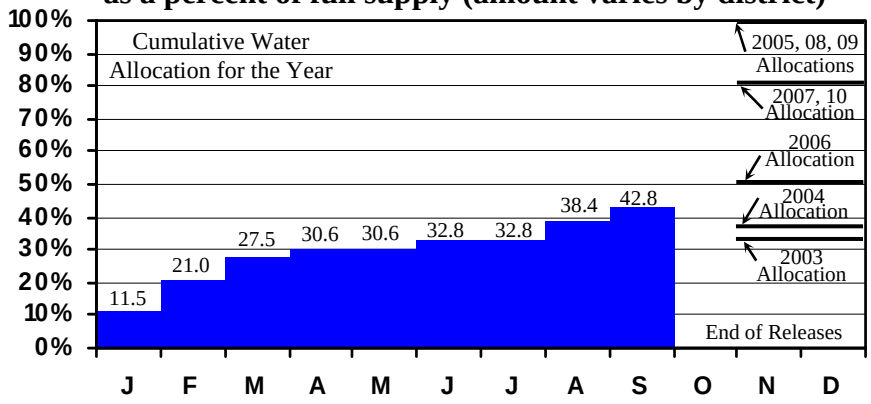
Combined Elephant Butte and Caballo Reservoir Storage



Water Supply Conditions & Forecasts

- **Water in Storage** is 209,490 acre-feet or **9.6 %** of the combined reservoir capacity of 2.23 million acre-feet. Of this, 189,000 acre-feet or 88 % of the amount in storage is Rio Grande Compact Credit and San Juan-Chama water which is not available for use. Extreme drought and La Nina conditions across the region are projected to persist.
- **Inflow to Elephant Butte Reservoir was just 14.8%** of the 30-year March-July average adjusted for upstream storage and use. In the last 15 years only three have had above average runoff; 1997, 2005 and 2008. The Climate Prediction Center three month forecast calls for above normal temperatures and below average chances of precipitation.
- **2011 Rio Grande Project average water allocation to-date is 42.8% of a full supply**. Individual District's water availability varies widely.

Water allocation to agricultural and urban users as a percent of full supply (amount varies by district)



Produced by: **Texas AgriLife Research Center at El Paso, Texas A&M University System in cooperation with the USDOI Bureau of Reclamation, El Paso, Texas Water Resources Institute and USDA-NIFA Rio Grande Basin Initiative**

For additional information: http://elpaso.tamu.edu/research
http://elpaso.uc.usbr.gov