## CASITAS MUNICIPAL WATER DISTRICT

DATE: January 31, 2014

TO: Lorraine Walter, Ventura River Watershed Council

FROM: Steven E. Wickstrum, General Manager

SUBJECT: Water Supply Status

The Casitas Municipal Water District is presenting the following summary of water supply conditions in Casitas boundaries as of January 29, 2014.

The Ventura River and Ojai Valley watersheds are experiencing a third consecutive year of less than average rainfall. The surface water flows, groundwater basins, and water supply availability in the Ventura River and Ojai watersheds are solely dependent on being restored by winter rainfall events. The last significant rainfall and runoff event occurred in March 2011.

The Ventura River has transitioned through the last three years from surface flow conditions (Matilija Dam to Foster Park) that were last observed in August 2011, to the present conditions north of Foster Park of no surface flows and depleted groundwater levels. Similarly, the Ojai groundwater basin water supply has continued to decline during the three years of less than average rainfall.

A primary purpose of the Ventura River Project and Lake Casitas is the provision of supplemental water supply to augment local groundwater supplies during an extended drought. Casitas is observing a temporary transition to the Lake Casitas supply by several groundwater agricultural pumpers and water companies. Without addition rainfall in the next couple of months and until rain restores the groundwater basins, many of the local groundwater pumpers may temporarily rely more on the Lake Casitas supply to meet their water demands.

The Lake Casitas storage volume has continued to decline since last attaining full capacity (254,000 acre-feet) in April 2005. Lake Casitas is presently at 60% of full capacity with 152,536 acre-feet remaining in storage. This is the lowest level of storage in Lake Casitas since May 1990. With the current dry winter weather trend and an expectation of an increase in water demand from Lake Casitas during the summer of 2014, it is highly likely that Lake Casitas will decline to 50 percent capacity by September 2014, as illustrated in Figure 1.

The water demand from Lake Casitas has increased from 2011 at 14,841 acre-feet to 18,924 acre-feet during 2013. If the drought continues, the total water demand from Lake Casitas could escalate to approximately 20,000 to 22,000 AFY. This escalation of water demand would following a similar demand trend as seen in CY 1990 when total water demand from Lake Casitas exceeded 24,000 acre-feet. The water conservation efforts and water pricing by Casitas MWD are among several factors that have resulted in a reduction of present water demand compared to that experienced during the 1988-1990 drought period. The following is a summary of the 2013 water demands for each of the Casitas customer classifications (maximum use either in 1989 or 1990):

<u>Residential</u> - CY 2013 total demand was 1,692 acre-feet, <u>150 AFY above</u> the CY 1989 residential demand. Additional allocations of 300 AFY were issued from the Mira Monte Well Project after 1993 and account for the increase in demand seen in 2013. The actual increase of 150 AFY does not reflect the amount of water allocated (300 AF).

<u>Business</u> - CY 2013 total demand was 702 acre-feet, <u>17 AFY less</u> than CY 1989 with the same areas being served. The primarily water use increase is by golf course irrigation needs to supplement the lack of seasonal rainfall. This demand has not seen any substantial change in water demand.

<u>Industry</u> - CY 2013 total demand was 20 acre-feet, <u>140 AFY less</u> than CY 1989. Drop in oil and gas production water demands in the Rincon service area.

<u>Agricultural</u> - CY 2013 total demand was 8,305 acre-feet, <u>3.355 AFY less</u> than the maximum CY 1990 demand. The continuation of drought could result in additional temporary demand shifts from groundwater basins to the Lake Casitas supply near levels seen in 1990. The demand shift magnitude may be tempered with a recognized higher cost of Casitas agricultural water in CY 2013 than in CY 1990.

Resale Pumped - CY 2013 total demand was 1,163 acre-feet, 202 AFY higher than 1990 due to transition to Lake Casitas supply from the depleted groundwater sources in the Upper Ventura River and Ojai areas. With continued drought in CY 2014 and no replenishment of the Ventura River and Ojai groundwater sources of supply, Casitas could expect a temporary transition of approximately 1,500 AFY increase over CY 2013 levels of demand by Resale Pumped.

Resale Gravity - CY 2013 total demand was 5,996 acre-feet, 4,154 AFY less than the high demand in CY 1990. The City of Ventura's in-district water demand average (2005-2013) is approx. 5,000 AFY. There are many reasons for the recent reduction in the City of Ventura's water demand.

<u>Interdepartmental</u> - CY 2013 total demand was 112 acre-feet, <u>159 AFY less</u> than CY 1990. There have been many changes to the irrigation practices at the Lake Casitas Recreation Area since 1990, and consider that Casitas added the Water Playground and River features in 1998 and 2003, respectively.

<u>Other</u> - CY 2013 total demand was 252 acre-feet, <u>60 AFY over</u> the CY 1990 demand. This water demand has been primarily driven by water use for turf areas in public and private schools, noting that there has been some expansion of turfed areas during the past twenty years.

<u>Temporary</u> - CY 2013 total demand was 52 acre-feet, <u>43 AFY over</u> the CY 1990 demand. This water demand has been primarily driven by the Caltrans project on State Highway 101 near La Conchita and temporary service delivered to a few agricultural customers that were in need of supplemental water.

While the Casitas system is operating as originally designed under safe yield conditions, there may be some time in the future that Lake Casitas could be at risk due to continued drought conditions and depletion of the Lake Casitas water supply to minimum pool. In 1992, the Casitas Municipal Water District adopted the Water Efficiency and Allocation Program and instituted voluntary water conservation measures. The Program enables the Casitas Board of Directors to prescribe additional measures to curb water demand should the water supply conditions in Lake Casitas worsen. The Program sets five stages of lake capacity as key benchmarks for Board action. Casitas is presently in Stage 1 condition until the lake capacity depletes to the 50 percent level. Casitas is presently reviewing the Program and will likely have some changes and improvements to the Program by summer 2014, ready for implementation as Lake Casitas declines to 50 percent capacity.

Figure 1 - Lake Casitas Storage - Safe Yield vs. Present Trend

