

MEMBER UNITS EXHIBIT NUMBER 90

**Written Testimony by William R. Mills Regarding the Process of Preparing  
the September 8, 1997 Santa Ynez River Hydrology Model Manual in  
Compliance with Section 3(e) of SWRCB Order WR 94-5**

Cachuma Conservation Release Board and  
Santa Ynez River Water Conservation District, Improvement District No. 1

I am currently employed as General Manager of the Orange County Water District and have served in that capacity since 1987. Prior to this position, I was a consulting water resource engineer and geohydrologist, first with the firm formally known as Toups Engineering (1967-1984), and later as an independent consultant (1984-1987). My prior employment includes the Los Angeles County Flood Control District and the California Department of Water Resources. I hold a Professional Engineer Degree from the Colorado School of Mines (Geological Engineering) and a Masters in Engineering from Loyola University of Los Angeles (Environmental Engineering).

While working with Toups Engineering, I performed studies for the Cachuma Conservation Release Board (CCRB), in conjunction with the United States Bureau of Reclamation, to determine the impact of Cachuma Project operations on downstream users. Beginning in approximately 1970 or 1971, I was a principal negotiator in the development of State Water Resources Control Board Order 73-37, which attempted to better protect downstream water rights and develop an operational scheme that would allow more water to be conserved in the watershed. While with Toups Engineering, I was involved in surface water investigations in many areas, including the Santa Ynez, Santa Maria, and Santa Barbara watersheds. I have been involved with the Santa Ynez River Hydrology Committee since its inception in 1986. As a Committee member, I helped develop the Santa Ynez River Hydrology Model and its supporting documentation, including the Santa Ynez River Hydrology Model Manual.

The following testimony regarding the September 8, 1997 Santa Ynez River Hydrology

Model Manual is submitted for the sole purpose of serving as a "progress report" on Section 3(e) of State Water Resources Control Board (SWRCB) Order WR 94-5, which requires a study report, or compilation of other existing materials which clearly describes the impacts, or lack thereof, of the Cachuma Project on downstream diverters as compared to conditions which would have existed in the absence of the Cachuma Project. This testimony does not address the substance of any modeling work in connection with the Santa Ynez River, or the substance of the Santa Ynez River Hydrology Manual, as such substantive testimony will be presented to the SWRCB during a subsequent hearing phase under the State Board Hearing Notice. Although substantial work has been performed in satisfaction of Section 3(e) of Order WR 94-5, expert testimony on Santa Ynez River modeling will not be presented because it serves as a predicate to the Environmental Impact Report (EIR) that will not be introduced until a later hearing phase. Accordingly, this "progress report" is limited in scope as a broad description of the continuous work that has been performed in an effort to model the hydrology of the Santa Ynez River watershed.

The September 8, 1997 Santa Ynez River Hydrology Model Manual (SYR Manual) is an explanatory and instructional outline on the basic structure and use of the Santa Ynez River Hydrology Model (SYR Model), an independent work in progress that was initially developed in the late 1970's by the Santa Barbara County Water Agency in response to the need for a comprehensive tool to analyze potential conjunctive use projects and evaluate hydrologic impacts on the downstream river system resulting from potential enlargements of Bradbury Dam (Cachuma Reservoir) and changes in diversion rates.

As works in progress, the SYR Manual and the SYR Model are constantly updated and expanded, reflecting a variety of manners in which the SYR Model has been refined to analyze the various hydrogeologic componentry and dynamics of the Santa Ynez River watershed. From its inception and throughout the history of its development, the SYR Model has been used by the Santa Ynez River Hydrology Committee (Committee) to simulate impacts from reservoir modifications and changes in diversion rates at the reservoirs on the River. The Committee is

comprised of water specialists and hydrologists, many of whom are representatives of local water interests. Members of the Committee have included: Jon Ahlroth, James Stubchaer, and Rob Almy (Santa Barbara County Water Agency), William Mills and Chuck Evans (Cachuma Conservation Release Board), Ali Shahroody (Stetson Engineers), Steve Mack (City of Santa Barbara), Gary Keefe and Mohammed Hassan (City of Lompoc) and Tony Buelna (U.S. Bureau of Reclamation).

The Committee was initially established in 1986. At the beginning, the meeting frequency was monthly. As the SYR Model became more fully developed, the Committee began documentation of the model mechanics and the meeting frequency was reduced to quarterly in order to allow for preparation and review of various chapters of the SYR Manual. The Committee last met in January of 1998, and the following list reasonably identifies the prior meeting dates of the Committee:

1997 - May 5; September 12

1996 - March 16; May 13; December 2

1995 - February 17; May 15; August 17

1994 - February 23; June 6; July 7; September 9

1993 - June 14; November 29

1992 - January 30; March 19; April 27; August 4

1991 - March 15; April 29; September 27; October 28

1990 - February 9; March 16

1989 - July 14; November 1

1988 - January 13; February 8; March 9; April 26; July 29; September 20

1987 - February 3; April 8; May 6; May 29; June 10; July 30; September 18;

October 16; November 16; November 30; December 18

1986 - July 31; August 19; August 29; October 17; December 2

The Committee was formed to derive an understanding of the cause and effect relationships among Santa Ynez River flows, reservoir operations along the River, and the Santa Ynez River watershed at large. The Committee has used the SYR Model in an attempt to reach conclusions on whether, and to what extent, Cachuma Reservoir operations have caused impacts to downstream diverters. The Santa Barbara County Water Agency staff and various members of the Committee are independently constructing more detailed modeling analysis of the surface and

groundwater interactions in the reach of the Santa Ynez River below Bradbury Dam and additional work is being performed that will provide modeling analysis on factors including water quality and the effects of water releases from Bradbury Dam as a protectionary measure for the downstream steelhead trout. Those analyses are scheduled to be presented to the State Water Resources Control Board during the water rights hearing phase on Permit Nos. 11308 and 11310 that will be conducted upon completion of the EIR being prepared pursuant to Order WR 94-5.

Again, the substantive Santa Ynez River modeling developments and conclusions arising out of the work described herein are being incorporated into the EIR under preparation by the Bureau of Reclamation, with the State Water Resources Control Board serving as the lead agency under the California Environmental Quality Act (CEQA). That environmental document is anticipated to be completed in approximately March 2001 and, therefore, information beyond this "progress report" is scientifically premature.