

			February 25, 1969	2,550
Whitewater River at Whitewater	57.5	1948 to present	March 2, 1938	42,000
			November 22, 1965	24,000
			January 25, 1969	16,200
			February 25, 1969	13,500
			December 6, 1966	5,500
			March 4, 1978	5,000
			February 21, 1980	3,200

**Table 3-2: Peak Elevation Levels of Lake Elsinore**

DATE	ELEVATION OF LAKE ELSINORE (feet)
April 1980	1265.7
April 1916	1265.6
April 1917	1260.7
May 1922	1259.7
May 1927	1259.0
May 1938	1258.9
April 1918	1258.7
June 1941	1258.6

### 3.2.3 Winter Floods of 1980

A series of six Pacific cyclones struck southern California during February 13-21, 1980 (Chin and others, 1991). Resultant flooding caused 18 deaths and about \$500 million in damages. For Riverside County, the floods of 1980 are the worst on record, responsible for ten deaths and more than \$70 million in damages. Historical flooding events in 1862, 1864 and 1938 may have been larger in terms of peak discharges, but may have been of comparable flood sizes. Those floods occurred prior to construction of many of southern California's dams and reservoirs, which reduce peak discharge. In 1980, extensive flooding along banks of reservoirs and streams, including failure of the San Jacinto River levees, led to a Presidential Disaster Declaration.

About \$4 million was spent for flood fighting and other emergency operations, and another \$6 million for rehabilitation projects following the flood. This was the single largest expenditure of funds for flood fighting and rehabilitation in any southern California county during the 1980 floods. The levee breaks along the San Jacinto River had the largest consequences of any southern California event associated with the 1980 flooding. The levee breaks left many homeless, and caused damages of \$29 million to urban areas and \$1.9 million to agricultural area.

Chin and others (1991) provide detailed documentation of the impacts of the 1980 storms for each affected river basin in Riverside County:

**Santa Margarita River Basin:** Vail Lake on Temecula Creek, about 10 miles east of Temecula in southwestern Riverside County, spilled for the first time since its construction in 1948. The maximum spill from Vail Lake reached 8,000 cubic feet per second (cfs). Murrieta Creek, which converges with Temecula Creek to form the Santa Margarita River, experienced a peak flow of 21,800 cfs at the city of Temecula, its highest flow on record.

**Santa Ana River Basin:** The Santa Ana River is the largest coastal stream in southern California. The basin includes the San Jacinto River and Lake Elsinore, where much of the flood disaster was centered. The contents of the Prado Flood Control reached 111,000 acre-feet on February 22<sup>nd</sup>, the second highest level on record. Mudflows and slope failures along the Santa Ana due to saturated soils caused extensive property damage throughout the Santa Ana River Basin. Upstream of Riverside County, debris flows destroyed more than 60 homes in the Harrison Canyon area of San Bernardino. By reducing peak discharge, reservoirs probably prevented worse disaster. In the flood of January 22, 1862, the largest in the history of the Santa Ana River basin, an estimated peak flow of 320,000 cfs destroyed the settlement of Agua Mansa in northern Riverside County. Discharges in the vicinity of this location were about 100,000 on March 2, 1938 and about 19,500 cfs on February 18, 1980. The reduction over time is a direct result of upstream reservoirs. With the recent completion of the Seven Oaks Dam, even more flood mitigation is in place.

**San Jacinto River:** The San Jacinto River flows northwestward from its headwaters in the San Jacinto Mountains, passes near the town of San Jacinto in the San Jacinto Valley, and turns southwestward toward Lake Elsinore about 30 miles downstream from San Jacinto. Many years ago the course of the river was altered and the reach

past San Jacinto and through the valley was leveed. On the morning of February 21, 1980, the levee upstream of the city of San Jacinto failed, and the flood water reverted to its original channel. Additional levees further north also failed. Flood water spread out across valley farmlands and into town.

**Lake Elsinore:** One of the major disasters of the 1980 flooding occurred at Lake Elsinore. Prior to the importation of Colorado River water in 1965, the lake was dry for many years. Much urbanization developed around the lake during years of low water levels. Since the importation of Colorado River water, a lake of about 6 square miles has been maintained. Prior to 1980, outflow is known to have occurred only in 1872, 1883-84, and 1916-17. During these rare occurrences, water flows northward out of the lake through Temescal Creek. Since it had been so long since outflow had occurred, gravel had built up at the Temescal Creek outlet. Not until February 23<sup>rd</sup> did the U.S. Army Corp of Engineers begin dredging the outlet. Inflow to Lake Elsinore from the San Jacinto River peaked at 8,000 cfs on February 22<sup>nd</sup>, and the lake surface reached its maximum elevation of 1,265 feet on March 20<sup>th</sup>. In the low-lying areas around the lake, 874 dwellings and facilities were damaged, and 2,000 residents were displaced. Nearly all the 400 mobile homes in the threatened area were relocated in time to prevent damage.