

1.3 Riverside County Seismicity

In Figure 1-4 and Table 1-3 are the epicenters and magnitudes of historical earthquakes that have caused significant ground shaking or secondary damage in Riverside County. These data are provided by the Southern California Earthquake Center Data Center (SCEC-DC, 1999). Several of these earthquakes have resulted in Modified Mercalli Intensity (MMI) VII (severe) ground shaking in Riverside County. Fatalities were reported in Riverside County as a result of San Jacinto fault earthquakes in 1899 and 1918. Recently, MMI VI shaking occurred in the southern Coachella Valley region of Riverside County during the October 1999 M_w 7.1 Hector Mine earthquake.

Table 1-3: Historical Earthquakes Impacting Riverside County

Date	Magnitude	Max MMI in Riverside County	Distance from Riverside County
Dec. 8, 1812; 7:00 am	7.5	VIII	Wrightwood; 18 miles north
July 22, 1899; 12:32 pm,	5.7	VII	Cajon Pass; 18 miles north
Dec. 25, 1899; 4:25 am	6.5	VIII	San Jacinto Valley, 6 fatalities in County
May 15, 1910; 7:47 am	6.0	VII	near Lake Elsinore
April 21, 1918; 2:32 pm	6.8	VIII	San Jacinto Valley, 1 fatality in County
March 10, 1933; 5:54 pm	6.4	V	Long Beach; 19 miles west
Dec. 4, 1948; 3:43 pm	6.0	VII	Desert Hot Springs
Sept. 12, 1970; 7:30 am	5.2	V	Lytle Creek; 18 miles north
July 8, 1986; 2:21 am	6.0	VII	North Palm Springs
Oct. 1, 1987; 7:42 am	5.9	IV	Whittier-Narrows; 21 miles west
June 26, 1988; 8:05 am	4.7	IV	Upland; 11 miles west
Feb. 28, 1990; 3:43 pm	5.4	V	Upland; 12 miles west
June 28, 1991; 7:43 am	5.8	IV	Sierra Madre; 18 miles northwest
April 22, 1992; 9:50 pm	6.1	VII	Joshua Tree
June 28, 1992; 4:57 am	7.3	VII	Landers; 8 miles north
June 28, 1992; 8:05 am	6.4	VI	Big Bear; 10 miles north
Jan. 17, 1994; 4:31 am	6.7	III	Northridge; 64 miles northwest
Oct. 16, 1999; 2:40 am	7.1	VI	Hector Mine; 20 miles north

Insert Figure 1-4: Notable Historic Earthquakes