California Fault Parameters
1996 Draft

SAN JACINTO-IMPERIAL FAULT ZONE

This table presents the preliminary values used by the California Department of Conservation's Division of Mines and Geology and the U.S. Geological Survey for estimating seismic hazard in the State of California.

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Fault Name and Geometry (1)	Length		Slip Rate		Rank (2)	Maximum Moment Magnitude (3)	Moment Rate (Newton-meters/yr)	Charac-teristic Return Interval (yrs)	Down-Dip Width (km)	Dip (deg.)	Magnitude Distribution Type (4)	Segment Endpoint North (Lon/Lat)	Segment Endpoint South (Lon/Lat)	Comments
	(km)	+/-	(mm/yr)	+/-										
Brawley Seismic Zone (rl-ss)	42	4	25.00	5.00	P	6.4	1.9E+17	24	6	90	cg	-115.71; 33.35	-115.51; 32.96	Slip rate and fault length reported by WGCEP (1995).
Imperial (rl-ss)	62	6	20.00	5.00	M	7.0	4.5E+17	79	12	90	c	-115.57; 32.91	-115.17; 32.47	Slip rate based on study by Thomas and Rockwell (1996). M 6.9 event occurred in 1940 (Ellsworth, 1990).
Superstition Hills (rl-ss)	22	2	4.00	2.00	P	6.6	3.2E+16	250	12	90	c	-115.84; 33.01	-115.64; 32.89	Slip rate and fault length reported by WGCEP (1995). Max. magnitude based on 1987 Superstition Hills earthquake (Wells and Coppersmith, 1994).
Elmore Ranch (ll-ss)	29	3	1.00	0.50	M	6.6	1.0E+16	225	12	90	cg	-115.66; 33.23	-115.85; 33.03	Late Holocene slip rate based on Hudnut, et al. (1989). Fault length includes eastward extent of zone of seismicity.
Superstition Mountain (rl-ss)	23	2	5.00	3.00	M	6.6	4.1E+16	500	12	90	c	-115.92; 33.99	-115.70; 32.89	Slip rate based on Gurrola and Rockwell (1996). Max. magnitude earthquake based on 1968 Borrego Mtn. earthquake (Wells and Coppersmith, 1994).
San Jacinto-Borrego (rl-ss)	29	3	4.00	2.00	M	6.6	4.2E+16	175	12	90	c	-116.19; 33.20	-115.98; 33.01	Slip rate and fault length reported by WGCEP (1995).
San Jacinto-Coyote Creek (rl-ss)	40	4	4.00	2.00	M	6.8	7.2E+16	175	15	90	c	-116.51; 33.46	-116.19; 33.20	Slip rate and fault length reported by WGCEP (1995).
San Jacinto-Anza (rl-ss)	90	9	12.00	6.00	M	7.2	5.8E+17	250	18	90	c	-116.92; 33.74	-116.12; 33.26	Slip rate and fault length reported by WGCEP (1995).
San Jacinto-San Jacinto Valley (rl-ss)	42	4	12.00	6.00	P	6.9	2.7E+17	83	18	90	c	-117.24; 34.02	-116.92; 33.74	Slip rate and fault length reported by WGCEP (1995).

San Jacinto-San Bernardino (rl-ss)	35	4	12.00	6.00	P	6.7	1.9E+17	100	15	90	c	-117.51; 34.25	-117.24; 34.02	Slip rate and fault length reported by WGCEP (1995).
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1. (ss) strike slip, (r) reverse, (n) normal, (rl) right lateral, (ll) left lateral, (o) oblique
2. W = well constrained slip rate; M = moderately constrained slip rate; P = poorly constrained slip rate; U = unconstrained.
3. Maximum moment magnitude calculated from rupture area regressions (type "all") from Wells and Coppersmith (1994).
4. (c) characteristic; (g) Gutenberg-Richter; (cg) 50% characteristic - 50% Gutenberg-Richter.

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