



Appendix I Tsunami Table

November 2021

Tsunamis in the San Francisco Bay with Measurements Recorded in Alameda and Oakland

YEAR	LOCATION NAME	LAT	LONG	DIST FROM SOURCE	WATER HT	DAMAGE \$M	HORIZ INUND	DEATHS
1868	SAN FRANCISCO BAY NEAR ALAMEDA	37.71	-122.27	15	4.50			
1868	GOVERNMENT ISLAND, CA	37.77	-122.23	14				
1898	OAKLAND, CA	37.8	-122.27	46	0.31			
1946	SAN MATEO, CA	37.58	-122.32	3552	0.03			
1946	SAN FRANCISCO, HUNTERS POINT, CA	37.724	-122.369	3538	0.08			
1946	ALAMEDA, CA	37.79	-122.27	3539	0.20			
1946	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	3525	0.26			
1946	BOLINAS, CA	37.9	-122.68	3505	1.30			
1946	MUIR BEACH, CA	37.86	-122.58	3514	2.00			
1946	PRINCETON, HALF MOON BAY, CA	37.5049409	-122.4869222	3547	2.10	0.02	305	
1946	HALF MOON BAY, CA	37.5017	-122.4866	3547	2.60	0.001		
1952	ALAMEDA, CA	37.79	-122.27	7584	0.02			
1952	SAN FRANCISCO, CA	37.807	-122.465	7569	0.02			
1952	SAUSALITO, CA	37.865	-122.493	7564	0.05			
1952	ALAMEDA, CA	37.79	-122.27	5989	0.40			
1952	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	5976	0.54			
1957	ALAMEDA, CA	37.79	-122.27	4379	0.18			
1957	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	4364	0.26			
1960	ALAMEDA, CA	37.79	-122.27	9817	0.31			
1960	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	9828	0.46			
1960	PACIFICA, CA	37.614	-122.487	9812	1.20			
1960	STINSON BEACH, CA	37.9	-122.63	9845	1.50		15.24	
1960	PRINCETON, HALF MOON BAY, CA	37.5049409	-122.4869222	9802	2.20			
1964	COLLINSVILLE, CA	38.075	-121.85	3115	0.03			
1964	BENICIA, CA	38.05	-122.16	3106	0.06			
1964	ALAMEDA – ALVISO SOUGH , CA	37.42	-121.98	3175	0.18			
1964	POINT SAN PABLO, CA	37.963	-122.428	3104	0.67			
1964	BELVEDERE, CA	37.872	-122.463	3112	0.76			
1964	ALAMEDA – NAVAL AIR STATION, CA	37.79	-122.27	3127	0.80			
1964	SAN PABLO, CA	37.962	-122.419	3104	0.98			

YEAR	LOCATION NAME	LAT	LONG	DIST FROM SOURCE	WATER HT	DAMAGE \$M	HORIZ INUND	DEATHS
1964	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	3118	1.13	1		
1964	SAUSALITO, CA	37.865	-122.493	3111	1.20	0.118		
1964	OAKLAND, CA	37.78	-122.24	3129	1.22			
1964	RICHMOND, CA	37.923	-122.365	3110	1.37			
1964	SAN RAFAEL, CA	37.97	-122.52	3100	1.50	0.078		
1964	MUIR BEACH, CA	37.86	-122.58	3108	1.37			
1964	PACIFICA, CA	37.614	-122.487	3136	1.40			
1964	HALF MOON BAY, CA	37.5017	-122.4866	3148	1.50	0.001		
1964	SEACLIFF, CA	37.783	-122.483	3120	1.52			
1964	MARIN COUNTY, CA	38.07	-122.73	3081		1		
1964	BOLINAS, CA	37.9	-122.68	3100				1
1968	ALAMEDA, CA	37.79	-122.27	7710	0.10			
1968	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	7695	0.10			
1992	FORT POINT, CA	37.81	-122.47	326	0.03			
1992	ALAMEDA, CA	37.79	-122.27	337	0.04			
1994	ALAMEDA, CA	37.79	-122.27	7249	0.04			
2006	ALAMEDA, CA	37.79	-122.27	8422	0.04			
2006	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	8410	0.05			
2010	ALAMEDA, CA	37.79	-122.27	9663	0.12			
2010	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	9675	0.32			
2010	HALF MOON BAY, CA	37.5017	-122.4866	9650	0.60			
2011	PORT CHICAGO, CA	38.057	-122.038	7922	0.04			
2011	MARTINEZ, CA	38.0189	-122.13323	7918	0.06			
2011	MARE ISLAND, CA	38.07	-122.25	7906	0.07			
2011	REDWOOD CITY, CA	37.5066	-122.21	7944	0.12			
2011	RICHMOND, CA	37.92833	-122.4	7904	0.35			
2011	ALAMEDA, CA	37.79	-122.27	7922	0.51			
2011	Berkeley Marina, CA	37.87	-122.27	7917	0.51	0.125		
2011	Emery Cove Yacht Harbor, CA	37.8313	-122.2852	7918	0.60			
2011	Pier 39 (SF), CA	37.811	-122.41082	7911	0.60			
2011	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	7907	0.62			
2011	Clipper Yacht Harbor, Sausalito, CA	37.865	-122.493	7901	0.80			

YEAR	LOCATION NAME	LAT	LONG	DIST FROM SOURCE	WATER HT	DAMAGE \$M	HORIZ INUND	DEATHS
2011	Waldo Point Marina, Sausalito, CA	37.865	-122.493	7901	1.50			
2011	Pillar Point Harbor, CA	37.5	-122.4833	7925	0.70			
2011	HALF MOON BAY, CA	37.5017	-122.4866	7925	0.70			
2011	Bolinas/Stinson Beach, CA	37.9	-122.68	7886	0.90			
2011	Pacifica, CA	37.614	-122.487	7917	1.00			
2012	RICHMOND, CA	37.92833	-122.4	1815	0.09			
2012	ALAMEDA, CA	37.79	-122.27	1833	0.11			
2012	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	1825	0.14			
2015	RICHMOND, CA	37.92833	-122.4	9349	0.05			
2015	ALAMEDA, CA	37.79	-122.27	9330	0.06			
2015	SAN FRANCISCO, PRESIDIO, CA	37.807	-122.465	9343	0.12			

Source: National Geophysical Data Center / World Data Service (NGDC/WDS): Global Historical Tsunami Database. National Geophysical Data Center, NOAA. [doi:10.7289/V5PN93H7](https://doi.org/10.7289/V5PN93H7), accessed 11/30/15