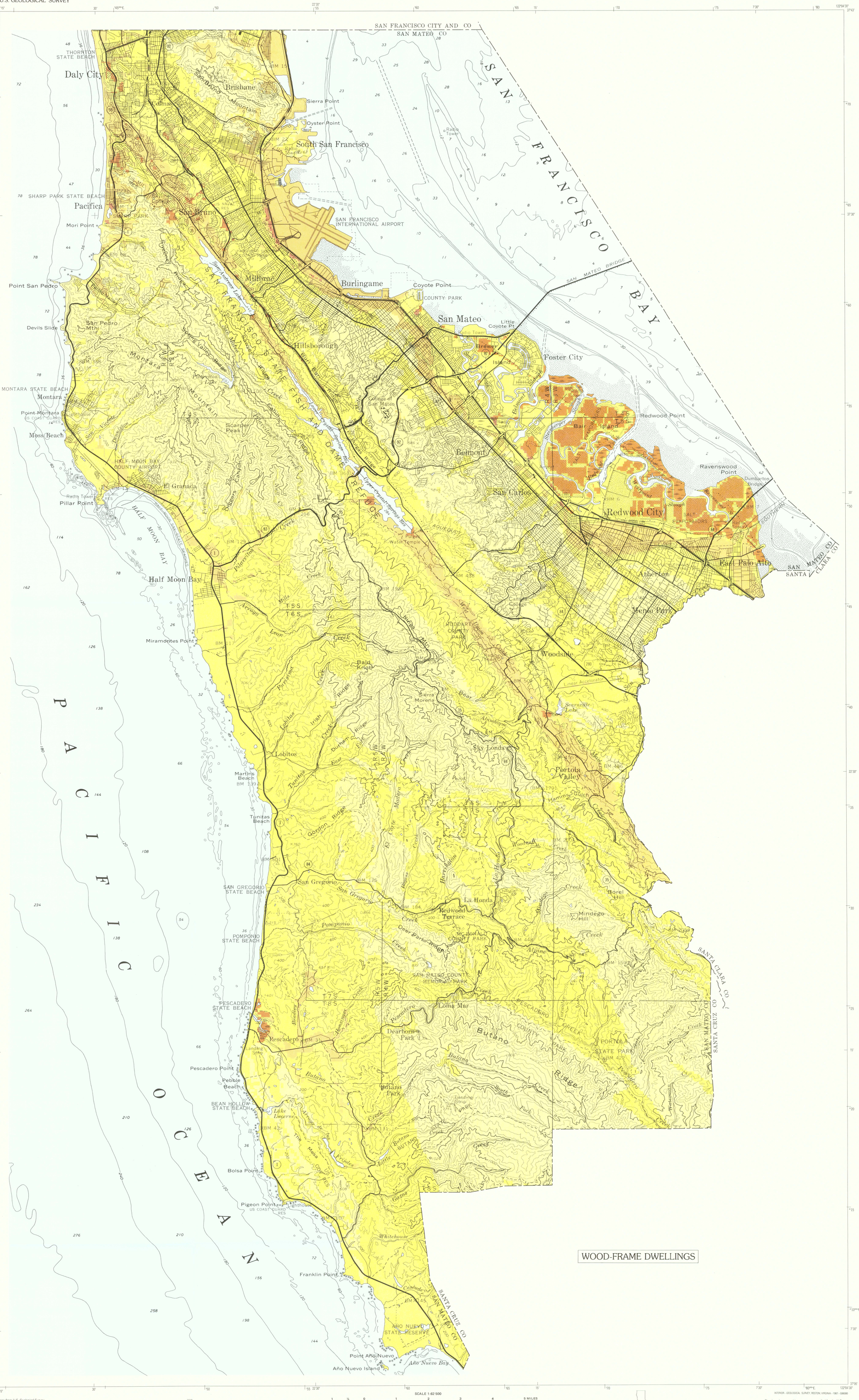


EXPLANATION

EXPECTED DAMAGE DISCOUNTED TO PRESENT VALUE—
Shown in percentage of cumulative damage potential

- Extremely high (greater than 6.0)
- Very high (5.1—6.0)
- High (4.1—5.0)
- Moderately high (3.1—4.0)
- Moderate (2.1—3.0)
- Moderately low (1.1—2.0)
- Low (0.3—1.0)
- Very low (0—0.2)

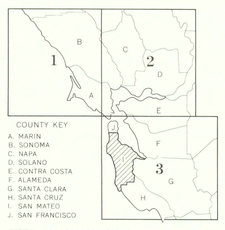
Table 1.—*Jurisdictional areas showing percentages of cummulative damage potential for wood-frame dwellings*
[Values of jurisdictional areas in hectares]

Jurisdiction	Percentage of expected damage (discounted to present value)								
	0-0.2	0.3-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	>6.0	Total
Atherton	536	747	11	0	0	0	0	0	1,294
Belmont	964	211	43	2	7	0	0	0	1,227
Brisbane	130	7	427	0	0	0	0	0	564
Burlingame	286	483	434	10	4	0	0	0	1,217
Colma	6	475	0	0	0	0	0	0	481
Daly City	162	1,543	465	41	0	0	0	0	2,211
Foster City	0	921	0	78	0	0	0	0	999
Half Moon Bay	1,758	3,532	484	0	0	0	0	0	5,774
Hillsborough	1,037	641	3	1	0	0	0	0	1,682
Menlo Park	710	1,391	246	651	0	0	0	0	2,998
Millbrae	10	720	100	4	11	0	0	0	845
Pacifica	1,828	843	722	27	11	0	0	0	3,431
Portola Valley	295	2,165	835	0	0	0	0	0	3,295
Redwood City	1,243	2,445	598	1,577	16	0	0	0	5,879
San Bruno	9	955	485	49	28	0	0	0	1,526
San Carlos	1,190	525	42	1	2	0	0	0	1,760
San Mateo	1,341	1,754	439	17	6	0	0	0	3,557
So. San Francisco	279	1,281	916	17	0	0	0	0	2,493
Woodside	1,234	3,382	847	11	0	0	0	0	5,474
Unincorporated	35,737	30,927	2,777	170	1	0	0	0	69,612
Total	48,755	54,948	9,874	2,656	86	0	0	0	116,319

Table 2.—*Land use area showing percentages of cummulative damage potential for wood-frame dwellings*
[Values of land-use area in hectares. DU, dwelling unit]

Land use	Percentage of expected damage (discounted to present value)								
	0-0.2	0.3-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0	5.1-6.0	>6.0	Total
Residential									
1 or less DU per hectare	70	64	2	0	0	0	0	0	136
2–8 DU per hectare	2,311	3,489	767	1	0	0	0	0	6,568
9 or more DU per hectare	3,857	5,797	2,166	109	5	0	0	0	11,934
Commerical and services									
Retail and wholesale	287	1,127	707	11	4	0	0	0	2,136
Commercial outdoor recreation	22	79	23	1	0	0	0	0	125
Elementary and secondary schools	270	565	229	6	0	0	0	0	1,070
Colleges and universities	130	12	24	0	0	0	0	0	166
Other educational	46	15	2	0	0	0	0	0	63
Hospitals, rehabilitation centers, and other public facilities	22	81	4	0	0	0	0	0	107
Military installations	15	42	12	0	0	0	0	0	69
Other public institutions	25	67	18	0	0	0	0	0	110
Research centers	43	61	1	0	0	0	0	0	105
Industrial									
Light industry	60	349	321	4	2	0	0	0	736
Heavy industry	15	957	61	1,325	6	0	0	0	2,364
Transportation, communication, and utilities									
Unspecified	1	5	4	6	0	0	0	0	16
Highways	131	756	306	28	2	0	0	0	1,223
Railways	14	75	120	0	0	0	0	0	209
Airports	1	177	757	0	1	0	0	0	936
Port facilities	0	4	4	0	0	0	0	0	8
Power transmission	6	69	19	61	4	0	0	0	159
Sewage treatment plants	0	19	13	0	0	0	0	0	32
Commercial and industrial complexes	0	80	13	0	0	0	0	0	93
Mixed urban or built-up land	24	114	97	4	2	0	0	0	241
Other urban or built-up land									
Extensive recreation									
Unspecified	2	29	15	0	0	0	0	0	46
Golf courses	115	553	81	5	8	0	0	0	762
Race tracks	0	38	39	0	0	0	0	0	77
Cemeteries	30	437	3	0	0	0	0	0	470
Parks	49	146	29	1	0	0	0	0	225
Open space—urban	48	137	42	0	0	0	0	0	227
Not urban									
Greenhouses	12	95	53	0	0	0	0	0	160
Mines, quarries, and gravel pits	78	25	27	2	0	0	0	0	132
Sanitary landfills	6	58	86	25	0	0	0	0	175
Other	41,065	39,426	3,829	1,067	52	0	0	0	85,439
Total	48,755	54,948	9,874	2,656	86	0	0	0	116,319

These maps provide a way to compare the expected damage from earthquake shaking over a long period of time for specified types of buildings. The areas with larger percentage values are more likely to have greater earthquake shaking damage, and therefore, additional structural or subdivision design precautions are potentially worthwhile. The maps are NOT ADEQUATE for determining engineering design at a specific site.



INDEX MAP OF THE THREE SAN FRANCISCO BAY AREA REGION SHEETS SHOWING AREA OF THIS REPORT

Base from U.S. Geological Survey, San Francisco Bay Region, Sheet 3, 1:125,000, 1970. Park boundaries revised 1981
5000-meter Universal Transverse Mercator grid ticks, zone 10

APPROXIMATE MEAN DECLINATION, 1987

SCALE 1:62 500

CONTOUR INTERVAL 200 FEET
DOTTED LINES REPRESENT 40-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES IN FEET—DATUM IS MEAN LOWER LOW WATER
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE MEAN RANGE OF TIDE IS APPROXIMATELY 4 FEET IN THE PACIFIC OCEAN AND 5 FEET IN SAN FRANCISCO BAY

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1987—G86080

The data shown on this map were compiled for the U.S. Geological Survey under contract number 14-08-001-17751 and 14-08-001-21226

MAPS SHOWING CUMULATIVE DAMAGE POTENTIAL FROM EARTHQUAKE GROUND SHAKING, SAN MATEO COUNTY, CALIFORNIA

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1987

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For sale by U.S. Geological Survey, Map Distribution, Box 25286, Federal Center, Denver, CO 80225.
Explanatory pamphlet accompanies map