
Hazus: Earthquake Global Risk Report

Region Name: GreatValley04bGorV

Earthquake Scenario: greatvalley04bgordon_m6p77_se

Print Date: April 15, 2024

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

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General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 29 county(ies) from the following state(s):

California

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 33,861.94 square miles and contains 2,964 census tracts. There are over 4,585 thousand households in the region which has a total population of 12,897,419 people. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 3,993 thousand buildings in the region with a total building replacement value (excluding contents) of (millions of dollars). Approximately 90.00 % of the buildings (and % of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 204,524 and 130,639 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 3,993 thousand buildings in the region which have an aggregate total replacement value of (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 87% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 218 hospitals in the region with a total bed capacity of 31,782 beds. There are 4,677 schools, 1,265 fire stations, 410 police stations and 74 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes no hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 335,163.00 (millions of dollars). This inventory includes over 7,826.79 miles of highways, 9,429 bridges, 169,408.73 miles of pipes.

Table 1: Transportation System Lifeline Inventory

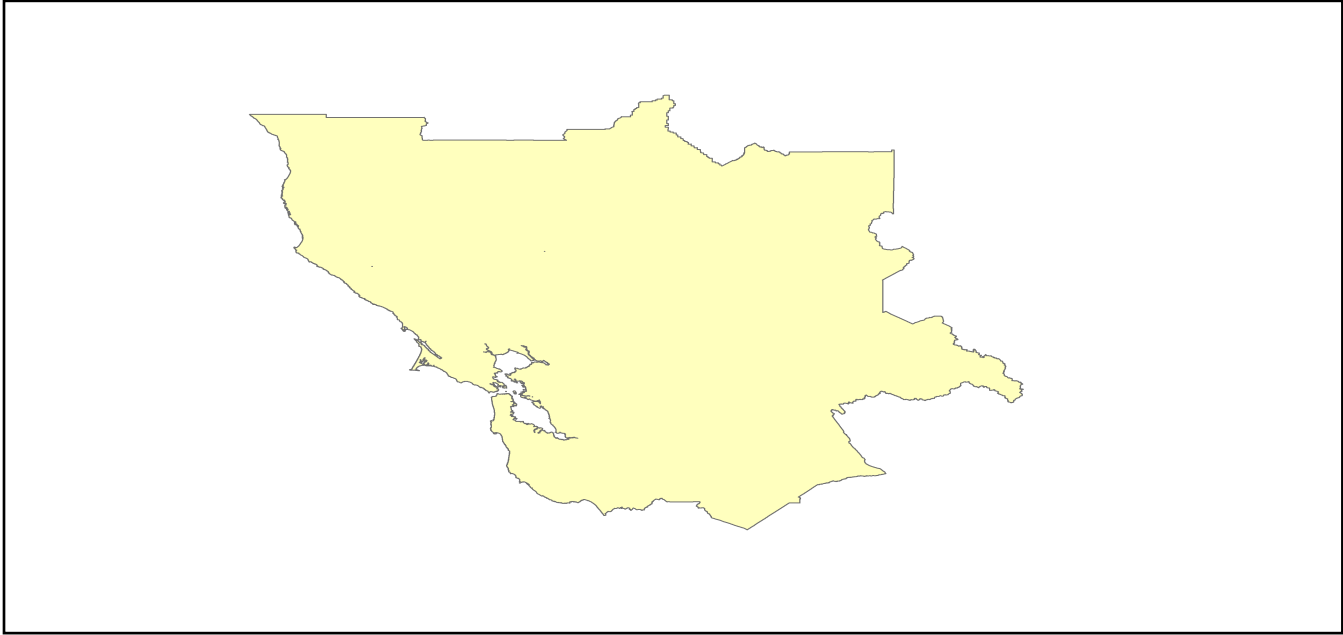
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	9,429	52322.3969
	Segments	5,926	70821.6800
	Tunnels	40	851.2123
	Subtotal		123995.2892
Railways	Bridges	1,431	8142.3900
	Facilities	70	186.4100
	Segments	2,723	57438.7888
	Tunnels	3	1.8495
	Subtotal		65769.4383
Light Rail	Bridges	112	15.3529
	Facilities	255	4154.0000
	Segments	15	5403.2756
	Tunnels	0	0.0000
	Subtotal		9572.6285
Bus	Facilities	30	69.2154
	Subtotal		69.2154
Ferry	Facilities	25	33.2750
	Subtotal		33.2750
Port	Facilities	359	1368.4522
	Subtotal		1368.4522
Airport	Facilities	84	2593.1933
	Runways	121	1122.6883
	Subtotal		3715.8816
		Total	204,524.20

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	3367.7767
	Facilities	22	864.4680
	Pipelines	0	0.0000
		Subtotal	4232.2447
Waste Water	Distribution Lines	NA	2020.6660
	Facilities	163	28028.1434
	Pipelines	0	0.0000
		Subtotal	30048.8094
Natural Gas	Distribution Lines	NA	1347.1107
	Facilities	1	41.2435
	Pipelines	854	11323.0566
		Subtotal	12711.4108
Oil Systems	Facilities	16	1.8880
	Pipelines	0	0.0000
		Subtotal	1.8880
Electrical Power	Facilities	266	83609.6867
		Subtotal	83609.6867
Communication	Facilities	304	35.8720
		Subtotal	35.8720
	Total		130,639.90

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	greatvalley04bgordon_m6p77_se
Type of Earthquake	User-defined
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	NA
Latitude of Epicenter	NA
Earthquake Magnitude	6.77
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 18,123 buildings will be at least moderately damaged. This is over 0.00 % of the buildings in the region. There are an estimated 88 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

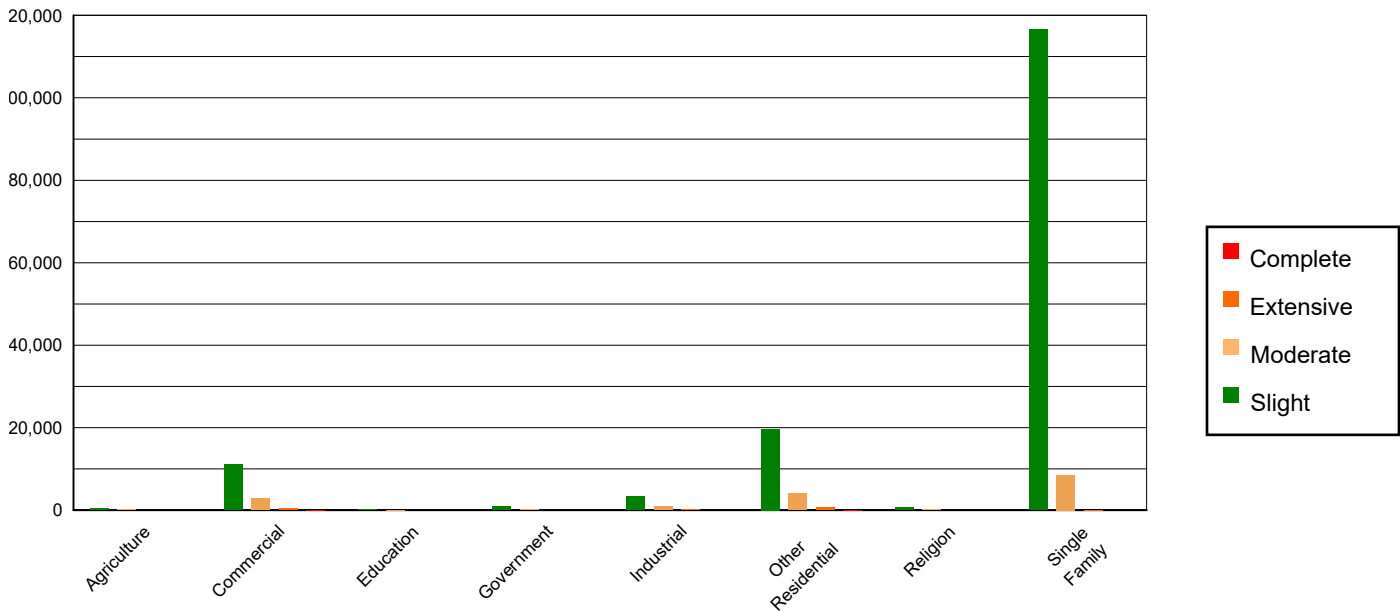


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	22085.18	0.58	471.12	0.31	136.26	0.80	18.03	1.65	1.42	1.59
Commercial	241276.79	6.31	11032.10	7.23	2871.79	16.95	321.85	29.39	36.47	40.98
Education	7945.28	0.21	182.90	0.12	40.08	0.24	4.29	0.39	0.46	0.52
Government	20243.44	0.53	867.82	0.57	165.78	0.98	12.55	1.15	0.40	0.45
Industrial	66717.19	1.75	3262.08	2.14	955.18	5.64	87.96	8.03	6.59	7.40
Other Residential	474604.48	12.42	19676.15	12.89	4065.83	24.00	576.17	52.62	41.36	46.48
Religion	13839.38	0.36	619.68	0.41	171.08	1.01	23.63	2.16	2.23	2.50
Single Family	2975584.38	77.85	116487.67	76.34	8533.42	50.38	50.47	4.61	0.06	0.06
Total	3,822,296		152,600		16,939		1,095		89	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	3325261.25	87.00	126799.31	83.09	8935.46	52.75	58.88	5.38	1.25	1.40
Steel	84160.75	2.20	4762.97	3.12	1710.60	10.10	214.72	19.61	20.17	22.67
Concrete	96677.87	2.53	4682.74	3.07	1145.77	6.76	162.37	14.83	15.94	17.91
Precast	48423.71	1.27	2543.33	1.67	867.60	5.12	62.19	5.68	2.27	2.56
RM	154040.77	4.03	3075.95	2.02	782.74	4.62	53.25	4.86	0.47	0.52
URM	35963.37	0.94	6315.14	4.14	1355.81	8.00	103.26	9.43	19.61	22.03
MH	77768.39	2.03	4420.07	2.90	2141.46	12.64	440.27	40.21	29.28	32.90
Total	3,822,296		152,600		16,939		1,095		89	

*Note:

- RM Reinforced Masonry
- URM Unreinforced Masonry
- MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 31,782 hospital beds available for use. On the day of the earthquake, the model estimates that only 29,940 hospital beds (94.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 98.00% of the beds will be back in service. By 30 days, 100.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	218	1	0	212
Schools	4,677	35	0	4,583
EOCs	74	3	0	70
PoliceStations	410	5	0	398
FireStations	1,265	5	0	1,238

Transportation Lifeline Damage

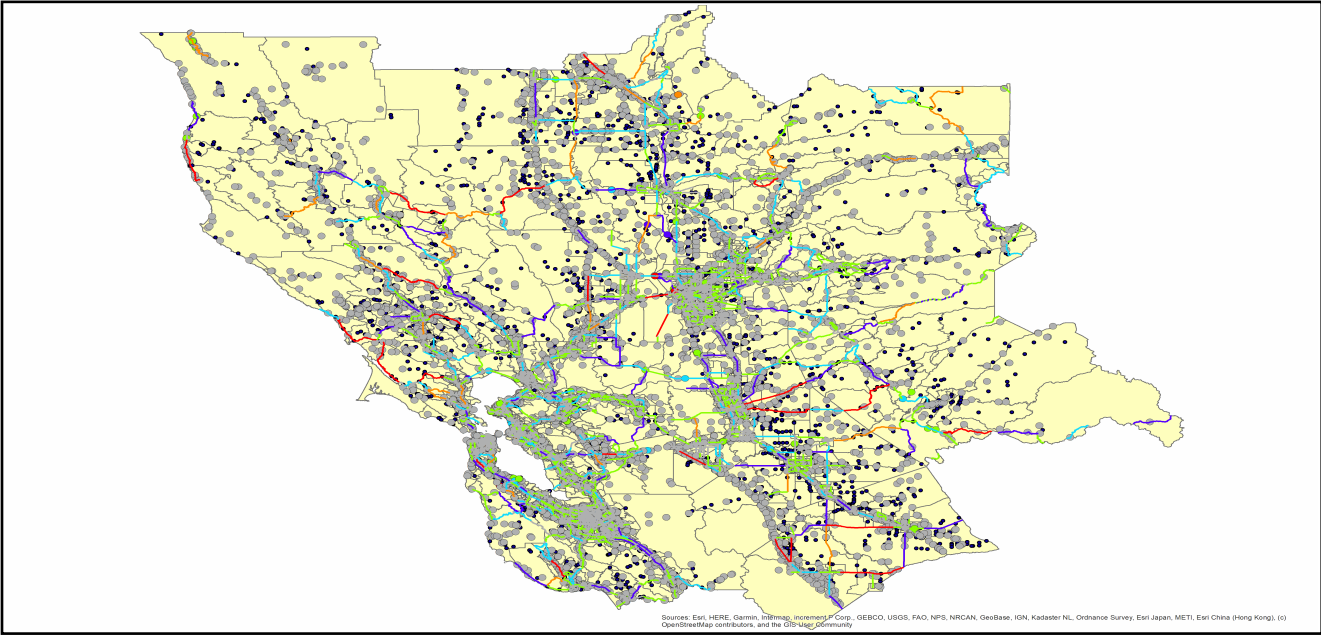


Table 6: Expected Damage to the Transportation Systems

System	Component	Locations/ Segments	Number of Locations_			
			With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	5,926	0	0	5,926	5,926
	Bridges	9,429	5	0	9,422	9,429
	Tunnels	40	0	0	40	40
Railways	Segments	2,723	0	0	2,723	2,723
	Bridges	1,431	0	0	1,431	1,431
	Tunnels	3	0	0	3	3
	Facilities	70	0	0	70	70
Light Rail	Segments	15	0	0	15	15
	Bridges	112	0	0	112	112
	Tunnels	0	0	0	0	0
	Facilities	255	0	0	255	255
Bus	Facilities	30	0	0	30	30
Ferry	Facilities	25	0	0	25	25
Port	Facilities	359	0	0	359	359
Airport	Facilities	84	0	0	84	84
	Runways	121	0	0	121	121

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	22	0	0	22	22
Waste Water	163	3	0	154	163
Natural Gas	1	0	0	1	1
Oil Systems	16	0	0	16	16
Electrical Power	266	17	0	256	265
Communication	304	1	0	303	304

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	104,632	1817	454
Waste Water	62,779	913	228
Natural Gas	1,998	0	0
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	4,585,589	18,878	11,226	1,177	0	0
Electric Power		67,201	43,406	17,776	1,452	88

Induced Earthquake Damage

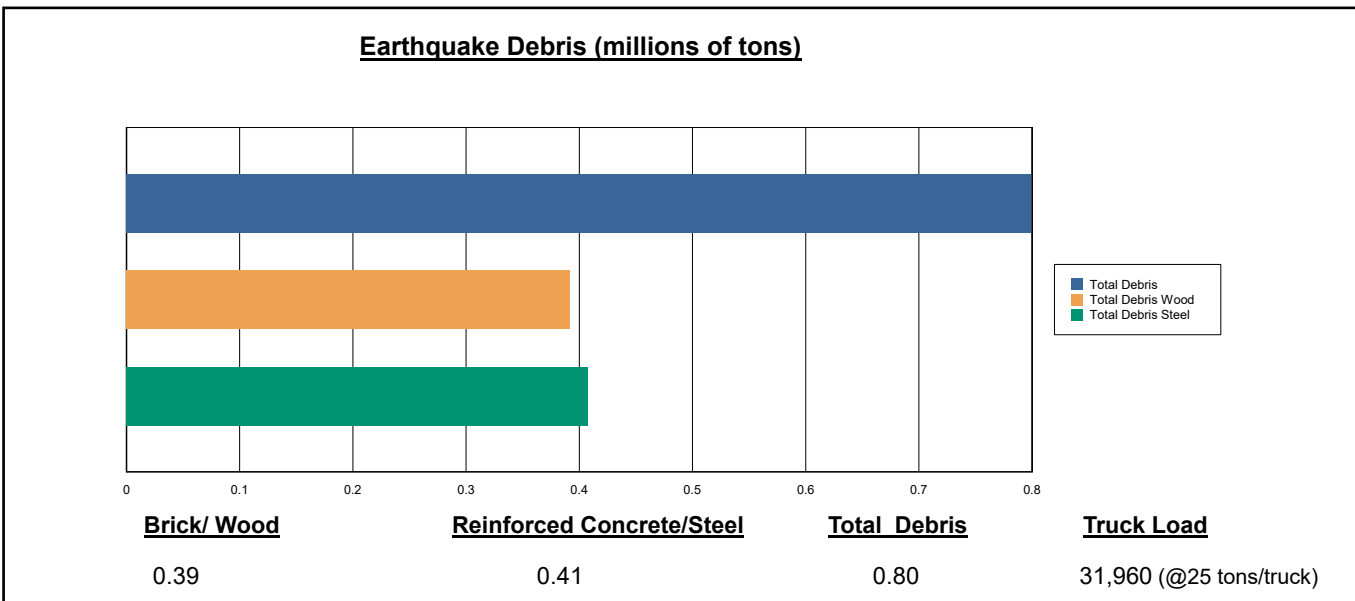
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 46 ignitions that will burn about 0.36 sq. mi (0.00 % of the region's total area.) The model also estimates that the fires will displace about 3,779 people and burn about 556 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

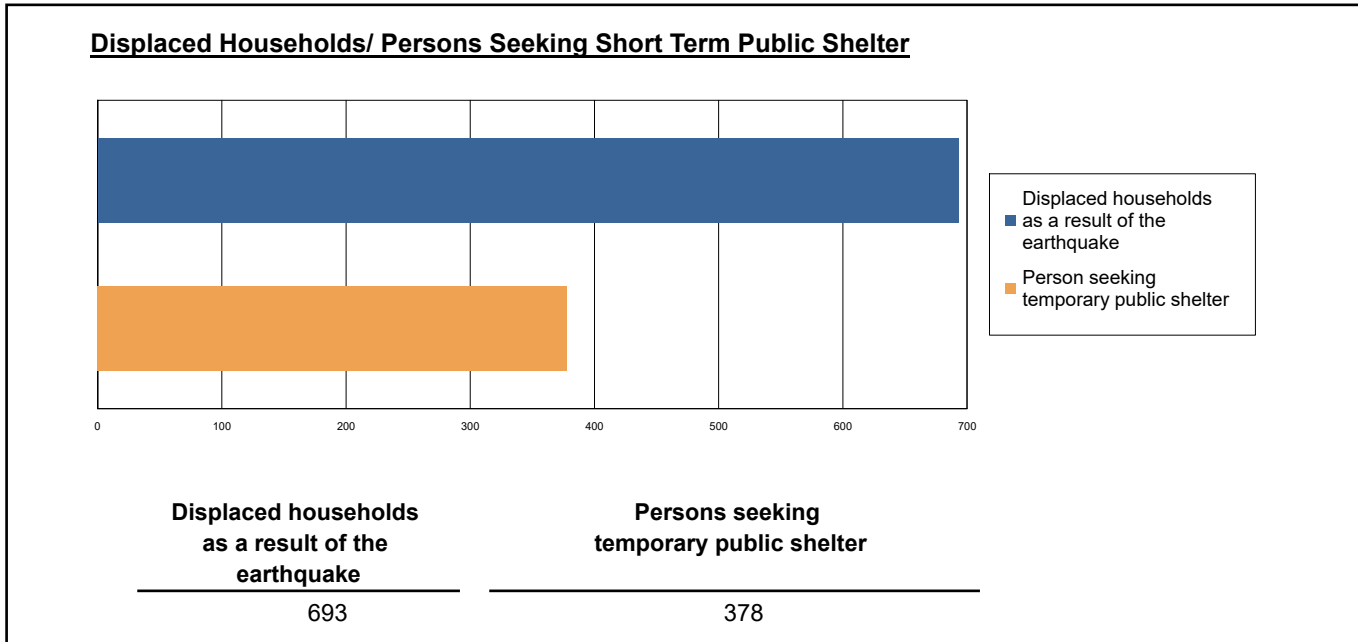
The model estimates that a total of 799,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 49.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 31,960 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 693 households to be displaced due to the earthquake. Of these, 378 people (out of a total population of 12,897,419) will seek temporary shelter in public shelters.



Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	5.57	0.60	0.05	0.09
	Commuting	0.07	0.11	0.17	0.03
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.31	0.02	0.00	0.00
	Industrial	5.31	0.52	0.03	0.05
	Other-Residential	163.72	13.10	0.59	1.07
	Single Family	225.29	7.36	0.02	0.02
	Total	400	22	1	1
2 PM	Commercial	355.28	37.27	2.68	5.14
	Commuting	0.67	0.95	1.53	0.30
	Educational	80.63	7.21	0.42	0.80
	Hotels	0.06	0.00	0.00	0.00
	Industrial	38.73	3.81	0.20	0.39
	Other-Residential	51.14	4.16	0.20	0.35
	Single Family	63.76	2.18	0.01	0.01
	Total	590	56	5	7
5 PM	Commercial	234.00	24.22	1.68	3.19
	Commuting	13.60	19.12	31.10	6.08
	Educational	9.15	0.42	0.01	0.01
	Hotels	0.09	0.01	0.00	0.00
	Industrial	24.21	2.38	0.13	0.24
	Other-Residential	60.30	4.96	0.23	0.42
	Single Family	81.82	2.81	0.01	0.01
	Total	423	54	33	10

Economic Loss

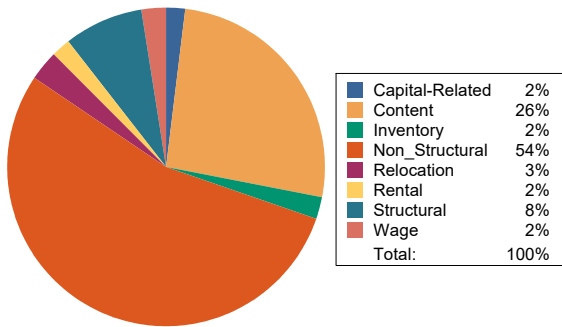
The total economic loss estimated for the earthquake is 14,282.31 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 9,644.51 (millions of dollars); 9 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 48 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type (\$ millions)



Earthquake Losses by Occupancy Type (\$ millions)

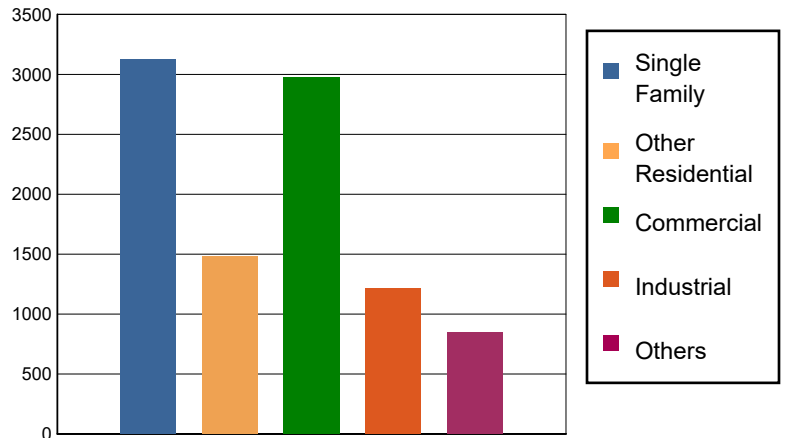


Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	15.2449	187.9498	8.8779	21.1683	233.2409
	Capital-Related	0.0000	6.4831	160.4880	5.3362	3.9647	176.2720
	Rental	21.3890	51.4957	97.5467	5.3129	8.4987	184.2430
	Relocation	56.9317	31.8503	118.6340	26.2731	41.7867	275.4758
	Subtotal	78.3207	105.0740	564.6185	45.8001	75.4184	869.2317
Capital Stock Losses							
	Structural	288.6425	112.9291	236.3097	89.0327	68.4835	795.3975
	Non_Structural	1994.5399	964.9347	1252.7955	589.7123	430.9548	5,232.9372
	Content	763.0605	295.1466	787.6939	425.3353	261.4163	2,532.6526
	Inventory	0.0000	0.0000	136.1694	64.7245	13.3974	214.2913
	Subtotal	3046.2429	1373.0104	2412.9685	1168.8048	774.2520	8775.2786
	Total	3124.56	1478.08	2977.59	1214.60	849.67	9644.51

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	70821.6800	0.0000	0.00
	Bridges	52322.3969	67.4337	0.13
	Tunnels	851.2123	0.0651	0.01
	Subtotal	123995.2892	67.4988	
Railways	Segments	57438.7888	0.0000	0.00
	Bridges	8142.3900	9.8825	0.12
	Tunnels	1.8495	0.0011	0.06
	Facilities	186.4100	9.4780	5.08
	Subtotal	65769.4383	19.3616	
Light Rail	Segments	5403.2756	0.0000	0.00
	Bridges	15.3529	0.0005	0.00
	Tunnels	0.0000	0.0000	0.00
	Facilities	4154.0000	131.5260	3.17
	Subtotal	9572.6285	131.5265	
Bus	Facilities	69.2154	3.2847	4.75
	Subtotal	69.2154	3.2847	
Ferry	Facilities	33.2750	2.2467	6.75
	Subtotal	33.2750	2.2467	
Port	Facilities	1368.4522	92.7295	6.78
	Subtotal	1368.4522	92.7295	
Airport	Facilities	2593.1933	109.1864	4.21
	Runways	1122.6883	0.0000	0.00
	Subtotal	3715.8816	109.1864	
Total		204,524.18	425.83	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	864.4680	9.2850	1.07
	Distribution Lines	3367.7767	8.1776	0.24
	Subtotal	4232.2447	17.4626	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	28028.1434	467.0357	1.67
	Distribution Lines	2020.6660	4.1078	0.20
	Subtotal	30048.8094	471.1435	
Natural Gas	Pipelines	11323.0566	0.0000	0.00
	Facilities	41.2435	0.0749	0.18
	Distribution Lines	1347.1107	1.4073	0.10
	Subtotal	12711.4108	1.4822	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	1.8880	0.0772	4.09
	Subtotal	1.8880	0.0772	
Electrical Power	Facilities	83609.6867	3721.1839	4.45
	Subtotal	83609.6867	3721.1839	
Communication	Facilities	35.8720	0.6125	1.71
	Subtotal	35.8720	0.6125	
	Total	130,639.91	4,211.96	

Appendix A: County Listing for the Region

Alameda,CA
Amador,CA
Butte,CA
Calaveras,CA
Colusa,CA
Contra Costa,CA
El Dorado,CA
Glenn,CA
Lake,CA
Marin,CA
Mendocino,CA
Merced,CA
Napa,CA
Nevada,CA
Placer,CA
Sacramento,CA
San Francisco,CA
San Joaquin,CA
San Mateo,CA
Santa Clara,CA
Santa Cruz,CA
Sierra,CA
Solano,CA
Sonoma,CA
Stanislaus,CA
Sutter,CA
Tuolumne,CA
Yolo,CA
Yuba,CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California	Alameda	1,682,353	209,951	122,639	332,590
	Amador	40,474	5,608	2,517	8,125
	Butte	211,632	25,875	16,639	42,514
	Calaveras	45,292	8,305	4,893	13,199
	Colusa	21,839	2,244	2,024	4,268
	Contra Costa	1,165,927	158,118	60,339	218,458
	El Dorado	191,185	34,907	9,704	44,611
	Glenn	28,917	2,791	3,717	6,508
	Lake	68,163	9,699	4,530	14,229
	Marin	262,321	47,738	15,030	62,769
	Mendocino	91,601	14,237	8,510	22,748
	Merced	281,202	25,194	26,098	51,292
	Napa	138,019	20,517	13,045	33,563
	Nevada	102,241	17,908	6,108	24,016
	Placer	404,739	69,985	24,193	94,179
	Sacramento	1,585,055	179,811	83,911	263,723
	San Francisco	873,965	108,848	46,020	154,869
	San Joaquin	779,233	82,706	56,882	139,589
	San Mateo	764,442	110,372	44,995	155,368
	Santa Clara	1,936,259	261,111	120,471	381,582
	Santa Cruz	270,861	36,147	18,805	54,952
	Sierra	3,236	596	419	1,015
	Solano	453,491	55,802	26,393	82,195
	Sonoma	488,863	68,827	35,781	104,609
	Stanislaus	552,878	62,937	37,511	100,449
	Sutter	99,633	10,618	6,448	17,066
	Tuolumne	55,620	8,964	3,507	12,471
Yolo	216,403	24,130	18,343	42,473	
Yuba	81,575	8,161	4,677	12,839	
Total Region		12,897,419	1,672,107	824,149	2,496,269

Hazus: Earthquake Global Risk Report

Region Name: GreatValley04bGorV

Earthquake Scenario: greatvalley04bgordon_m6p77_se

Print Date: March 29, 2024

Disclaimer:

Totals only reflect data for those census tracts/blocks included in the user's study region.

The estimates of social and economic impacts contained in this report were produced using Hazus loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

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General Description of the Region

Hazus-MH is a regional earthquake loss estimation model that was developed by the Federal Emergency Management Agency (FEMA) and the National Institute of Building Sciences. The primary purpose of Hazus is to provide a methodology and software application to develop multi-hazard losses at a regional scale. These loss estimates would be used primarily by local, state and regional officials to plan and stimulate efforts to reduce risks from multi-hazards and to prepare for emergency response and recovery.

The earthquake loss estimates provided in this report was based on a region that includes 29 county(ies) from the following state(s):

California

Note:

Appendix A contains a complete listing of the counties contained in the region.

The geographical size of the region is 33,861.94 square miles and contains 2,964 census tracts. There are over 4,585 thousand households in the region which has a total population of 12,897,419 people. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 3,993 thousand buildings in the region with a total building replacement value (excluding contents) of (millions of dollars). Approximately 90.00 % of the buildings (and % of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 204,524 and 130,639 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 3,993 thousand buildings in the region which have an aggregate total replacement value of (millions of dollars) . Appendix B provides a general distribution of the building value by Total Region and County.

In terms of building construction types found in the region, wood frame construction makes up 87% of the building inventory. The remaining percentage is distributed between the other general building types.

Critical Facility Inventory

Hazus breaks critical facilities into two (2) groups: essential facilities and high potential loss facilities (HPL). Essential facilities include hospitals, medical clinics, schools, fire stations, police stations and emergency operations facilities. High potential loss facilities include dams, levees, military installations, nuclear power plants and hazardous material sites.

For essential facilities, there are 218 hospitals in the region with a total bed capacity of 31,782 beds. There are 4,677 schools, 1,265 fire stations, 410 police stations and 74 emergency operation facilities. With respect to high potential loss facilities (HPL), there are no dams identified within the inventory. The inventory also includes no hazardous material sites, no military installations and no nuclear power plants.

Transportation and Utility Lifeline Inventory

Within Hazus, the lifeline inventory is divided between transportation and utility lifeline systems. There are seven (7) transportation systems that include highways, railways, light rail, bus, ports, ferry and airports. There are six (6) utility systems that include potable water, wastewater, natural gas, crude & refined oil, electric power and communications. The lifeline inventory data are provided in Tables 1 and 2.

The total value of the lifeline inventory is over 335,163.00 (millions of dollars). This inventory includes over 7,826.79 miles of highways, 9,429 bridges, 169,408.73 miles of pipes.

Table 1: Transportation System Lifeline Inventory

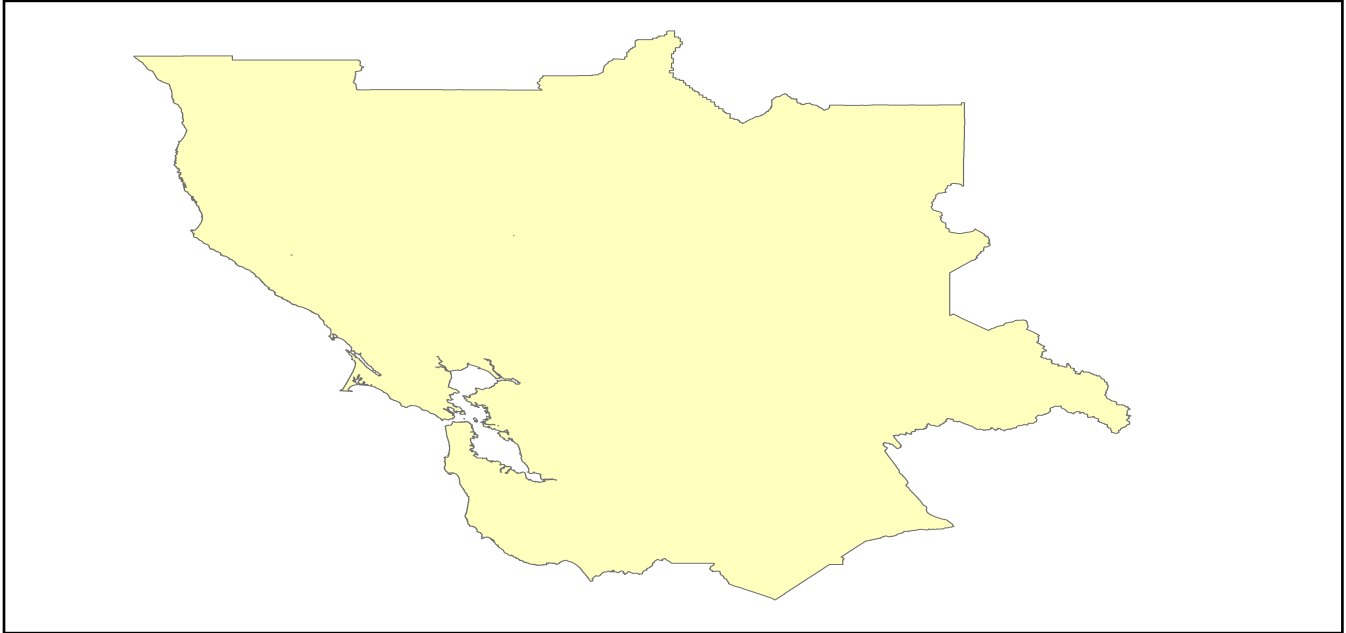
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	9,429	52322.3969
	Segments	5,926	70821.6800
	Tunnels	40	851.2123
	Subtotal		123995.2892
Railways	Bridges	1,431	8142.3900
	Facilities	70	186.4100
	Segments	2,723	57438.7888
	Tunnels	3	1.8495
	Subtotal		65769.4383
Light Rail	Bridges	112	15.3529
	Facilities	255	4154.0000
	Segments	15	5403.2756
	Tunnels	0	0.0000
	Subtotal		9572.6285
Bus	Facilities	30	69.2154
	Subtotal		69.2154
Ferry	Facilities	25	33.2750
	Subtotal		33.2750
Port	Facilities	359	1368.4522
	Subtotal		1368.4522
Airport	Facilities	84	2593.1933
	Runways	121	1122.6883
	Subtotal		3715.8816
		Total	204,524.20

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	3367.7767
	Facilities	22	864.4680
	Pipelines	0	0.0000
		Subtotal	4232.2447
Waste Water	Distribution Lines	NA	2020.6660
	Facilities	163	28028.1434
	Pipelines	0	0.0000
		Subtotal	30048.8094
Natural Gas	Distribution Lines	NA	1347.1107
	Facilities	1	41.2435
	Pipelines	854	11323.0566
		Subtotal	12711.4108
Oil Systems	Facilities	16	1.8880
	Pipelines	0	0.0000
		Subtotal	1.8880
Electrical Power	Facilities	266	83609.6867
		Subtotal	83609.6867
Communication	Facilities	304	35.8720
		Subtotal	35.8720
	Total		130,639.90

Earthquake Scenario

Hazus uses the following set of information to define the earthquake parameters used for the earthquake loss estimate provided in this report.



Scenario Name	greatvalley04bgordon_m6p77_se
Type of Earthquake	User-defined
Fault Name	NA
Historical Epicenter ID #	NA
Probabilistic Return Period	NA
Longitude of Epicenter	NA
Latitude of Epicenter	NA
Earthquake Magnitude	6.77
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 18,123 buildings will be at least moderately damaged. This is over 0.00 % of the buildings in the region. There are an estimated 88 buildings that will be damaged beyond repair. The definition of the 'damage states' is provided in Volume 1: Chapter 5 of the Hazus technical manual. Table 3 below summarizes the expected damage by general occupancy for the buildings in the region. Table 4 below summarizes the expected damage by general building type.

Damage Categories by General Occupancy Type

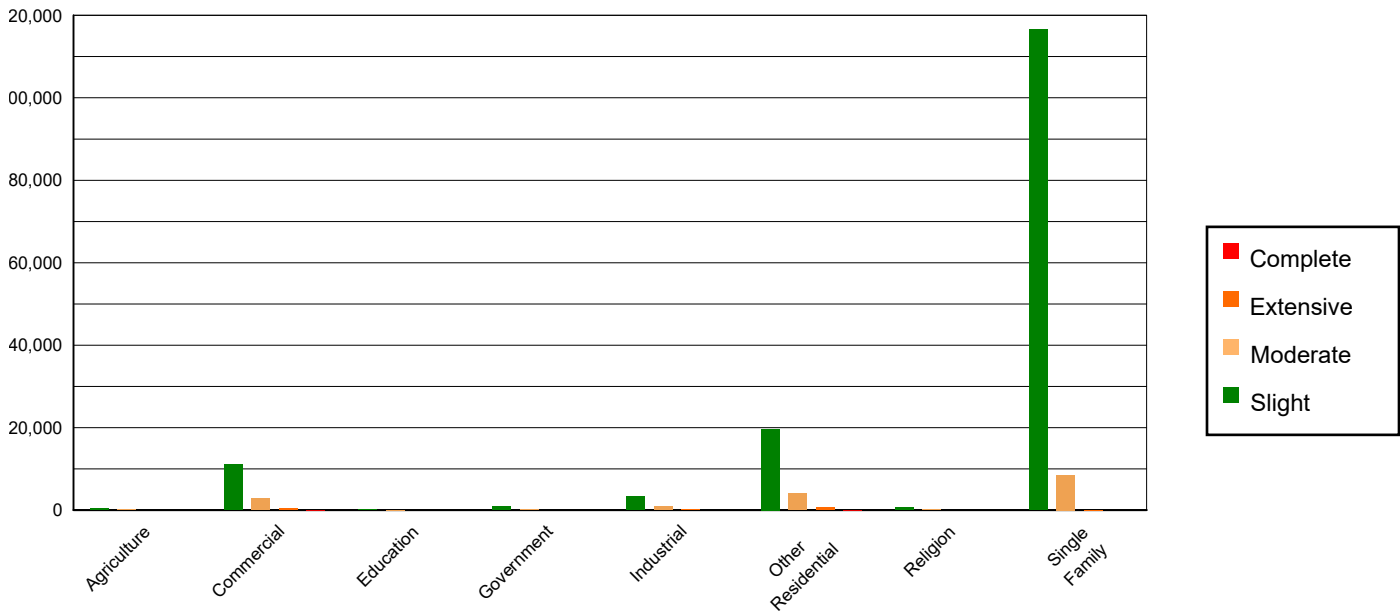


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	22085.18	0.58	471.12	0.31	136.26	0.80	18.03	1.65	1.42	1.59
Commercial	241276.79	6.31	11032.10	7.23	2871.79	16.95	321.85	29.39	36.47	40.98
Education	7945.28	0.21	182.90	0.12	40.08	0.24	4.29	0.39	0.46	0.52
Government	20243.44	0.53	867.82	0.57	165.78	0.98	12.55	1.15	0.40	0.45
Industrial	66717.19	1.75	3262.08	2.14	955.18	5.64	87.96	8.03	6.59	7.40
Other Residential	474604.48	12.42	19676.15	12.89	4065.83	24.00	576.17	52.62	41.36	46.48
Religion	13839.38	0.36	619.68	0.41	171.08	1.01	23.63	2.16	2.23	2.50
Single Family	2975584.38	77.85	116487.67	76.34	8533.42	50.38	50.47	4.61	0.06	0.06
Total	3,822,296		152,600		16,939		1,095		89	

Table 4: Expected Building Damage by Building Type (All Design Levels)

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	3325261.25	87.00	126799.31	83.09	8935.46	52.75	58.88	5.38	1.25	1.40
Steel	84160.75	2.20	4762.97	3.12	1710.60	10.10	214.72	19.61	20.17	22.67
Concrete	96677.87	2.53	4682.74	3.07	1145.77	6.76	162.37	14.83	15.94	17.91
Precast	48423.71	1.27	2543.33	1.67	867.60	5.12	62.19	5.68	2.27	2.56
RM	154040.77	4.03	3075.95	2.02	782.74	4.62	53.25	4.86	0.47	0.52
URM	35963.37	0.94	6315.14	4.14	1355.81	8.00	103.26	9.43	19.61	22.03
MH	77768.39	2.03	4420.07	2.90	2141.46	12.64	440.27	40.21	29.28	32.90
Total	3,822,296		152,600		16,939		1,095		89	

*Note:

- RM Reinforced Masonry
- URM Unreinforced Masonry
- MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 31,782 hospital beds available for use. On the day of the earthquake, the model estimates that only 29,940 hospital beds (94.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 98.00% of the beds will be back in service. By 30 days, 100.00% will be operational.

Table 5: Expected Damage to Essential Facilities

Classification	Total	# Facilities		
		At Least Moderate Damage > 50%	Complete Damage > 50%	With Functionality > 50% on day 1
Hospitals	218	1	0	212
Schools	4,677	35	0	4,583
EOCs	74	3	0	70
PoliceStations	410	5	0	398
FireStations	1,265	5	0	1,238

Transportation Lifeline Damage

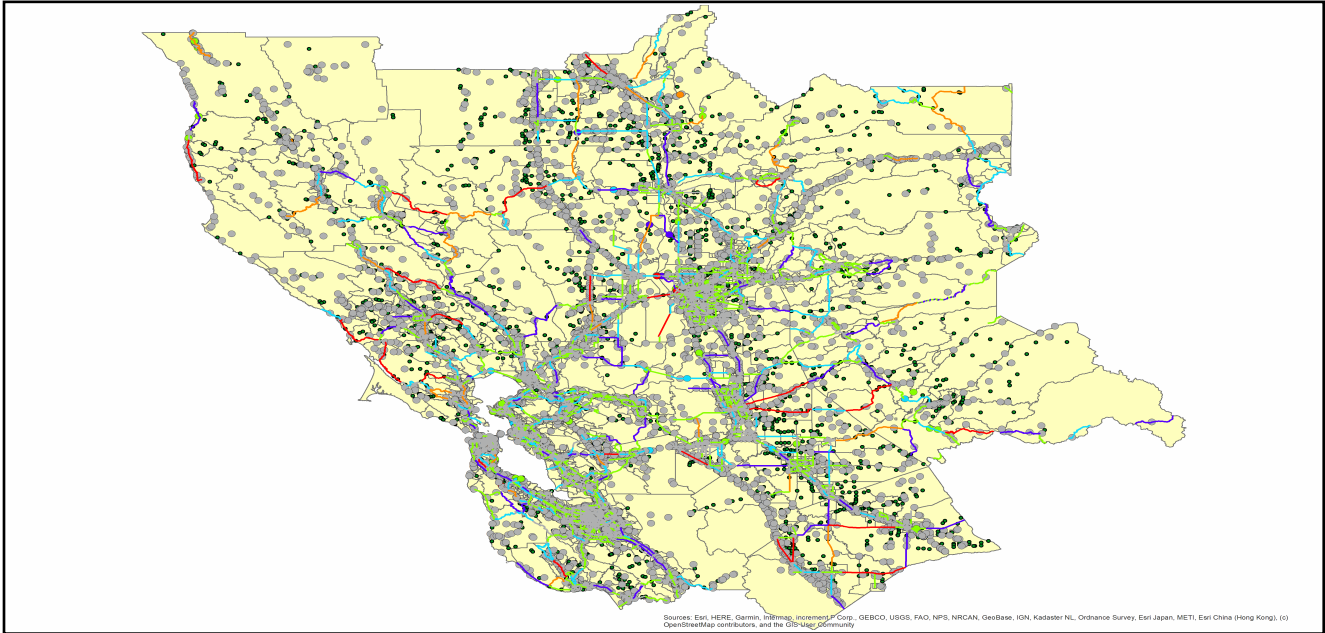


Table 6: Expected Damage to the Transportation Systems

System	Component	Locations/ Segments	Number of Locations_			
			With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	5,926	0	0	5,926	5,926
	Bridges	9,429	5	0	9,422	9,429
	Tunnels	40	0	0	40	40
Railways	Segments	2,723	0	0	2,723	2,723
	Bridges	1,431	0	0	1,431	1,431
	Tunnels	3	0	0	3	3
	Facilities	70	0	0	70	70
Light Rail	Segments	15	0	0	15	15
	Bridges	112	0	0	112	112
	Tunnels	0	0	0	0	0
	Facilities	255	0	0	255	255
Bus	Facilities	30	0	0	30	30
Ferry	Facilities	25	0	0	25	25
Port	Facilities	359	0	0	359	359
Airport	Facilities	84	0	0	84	84
	Runways	121	0	0	121	121

Table 6 provides damage estimates for the transportation system.

Note: Roadway segments, railroad tracks and light rail tracks are assumed to be damaged by ground failure only. If ground failure maps are not provided, damage estimates to these components will not be computed.

Tables 7-9 provide information on the damage to the utility lifeline systems. Table 7 provides damage to the utility system facilities. Table 8 provides estimates on the number of leaks and breaks by the pipelines of the utility systems. For electric power and potable water, Hazus performs a simplified system performance analysis. Table 9 provides a summary of the system performance information.

Table 7 : Expected Utility System Facility Damage

System	# of Locations				
	Total #	With at Least Moderate Damage	With Complete Damage	with Functionality > 50 %	
				After Day 1	After Day 7
Potable Water	22	0	0	22	22
Waste Water	163	3	0	154	163
Natural Gas	1	0	0	1	1
Oil Systems	16	0	0	16	16
Electrical Power	266	17	0	256	265
Communication	304	1	0	303	304

Table 8 : Expected Utility System Pipeline Damage (Site Specific)

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	104,632	1817	454
Waste Water	62,779	913	228
Natural Gas	1,998	0	0
Oil	0	0	0

Table 9: Expected Potable Water and Electric Power System Performance

	Total # of Households	Number of Households without Service				
		At Day 1	At Day 3	At Day 7	At Day 30	At Day 90
Potable Water	4,585,589	18,878	11,226	1,177	0	0
Electric Power		67,201	43,406	17,776	1,452	88

Induced Earthquake Damage

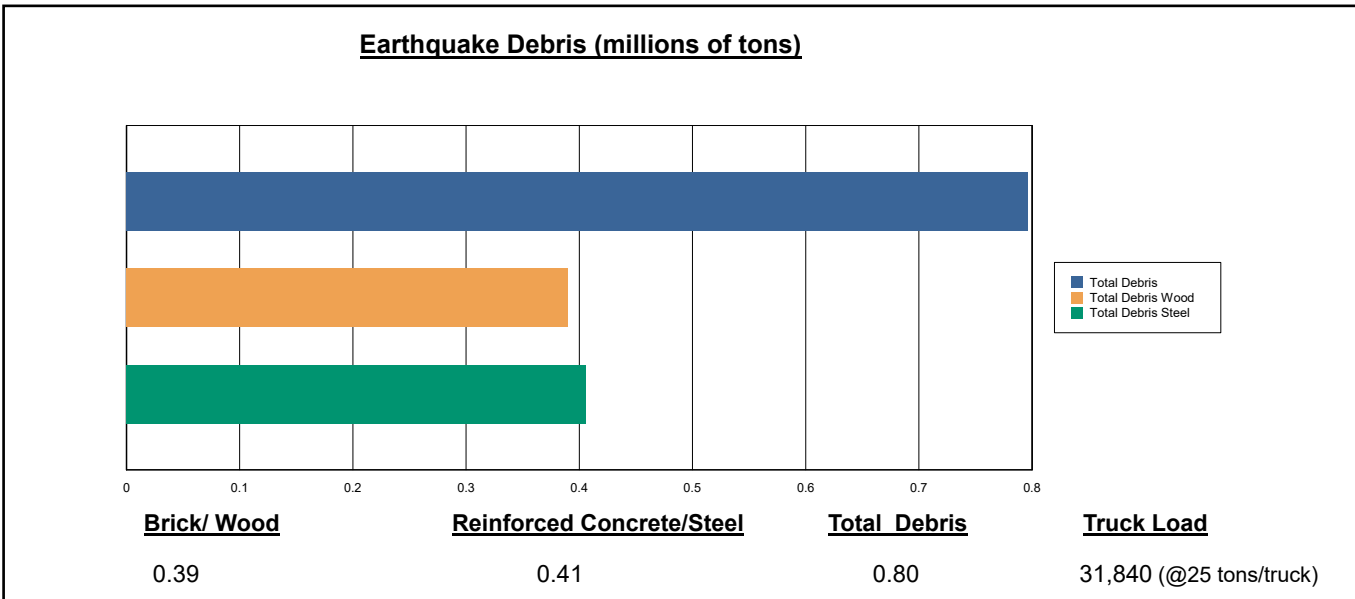
Fire Following Earthquake

Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there will be 46 ignitions that will burn about 0.36 sq. mi (0.00 % of the region's total area.) The model also estimates that the fires will displace about 3,779 people and burn about 556 (millions of dollars) of building value.

Debris Generation

Hazus estimates the amount of debris that will be generated by the earthquake. The model breaks the debris into two general categories: a) Brick/Wood and b) Reinforced Concrete/Steel. This distinction is made because of the different types of material handling equipment required to handle the debris.

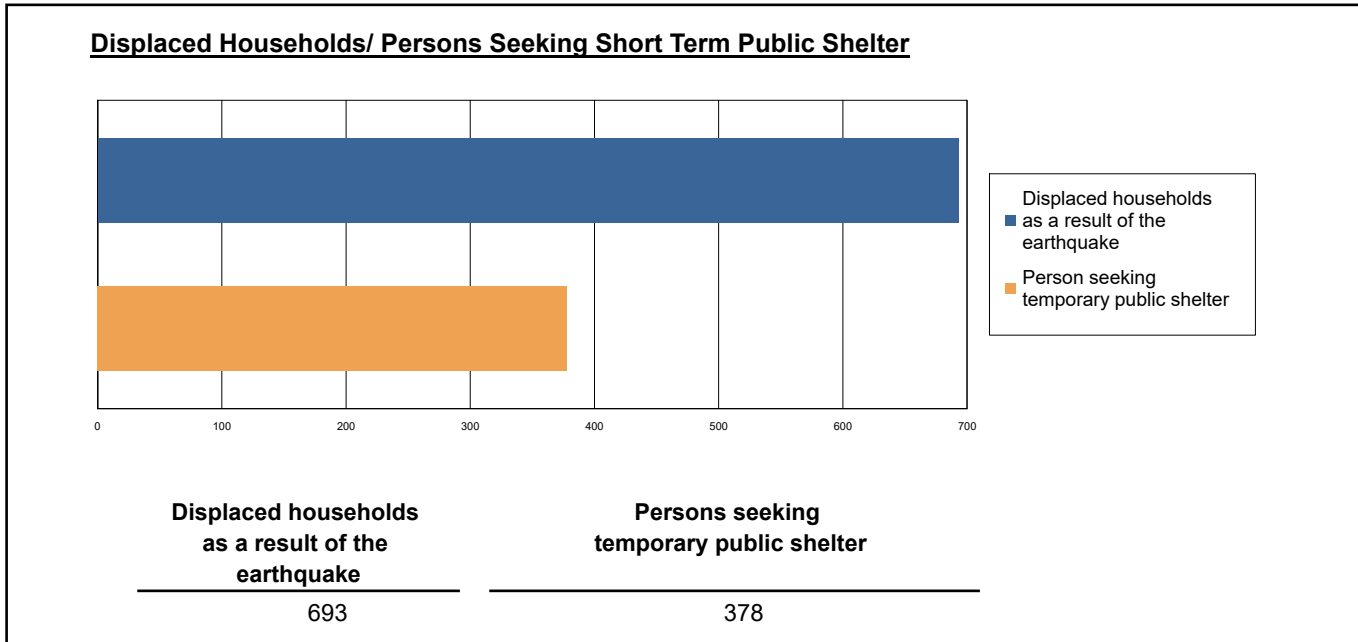
The model estimates that a total of 796,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 49.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 31,840 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.



Social Impact

Shelter Requirement

Hazus estimates the number of households that are expected to be displaced from their homes due to the earthquake and the number of displaced people that will require accommodations in temporary public shelters. The model estimates 693 households to be displaced due to the earthquake. Of these, 378 people (out of a total population of 12,897,419) will seek temporary shelter in public shelters.



Casualties

Hazus estimates the number of people that will be injured and killed by the earthquake. The casualties are broken down into four (4) severity levels that describe the extent of the injuries. The levels are described as follows;

- Severity Level 1: Injuries will require medical attention but hospitalization is not needed.
- Severity Level 2: Injuries will require hospitalization but are not considered life-threatening
- Severity Level 3: Injuries will require hospitalization and can become life threatening if not promptly treated.
- Severity Level 4: Victims are killed by the earthquake.

The casualty estimates are provided for three (3) times of day: 2:00 AM, 2:00 PM and 5:00 PM. These times represent the periods of the day that different sectors of the community are at their peak occupancy loads. The 2:00 AM estimate considers that the residential occupancy load is maximum, the 2:00 PM estimate considers that the educational, commercial and industrial sector loads are maximum and 5:00 PM represents peak commute time.

Table 10 provides a summary of the casualties estimated for this earthquake

Table 10: Casualty Estimates

		Level 1	Level 2	Level 3	Level 4
2 AM	Commercial	5.57	0.60	0.05	0.09
	Commuting	0.07	0.11	0.17	0.03
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.31	0.02	0.00	0.00
	Industrial	5.31	0.52	0.03	0.05
	Other-Residential	163.72	13.10	0.59	1.07
	Single Family	225.29	7.36	0.02	0.02
	Total	400	22	1	1
2 PM	Commercial	355.28	37.27	2.68	5.14
	Commuting	0.67	0.95	1.53	0.30
	Educational	80.63	7.21	0.42	0.80
	Hotels	0.06	0.00	0.00	0.00
	Industrial	38.73	3.81	0.20	0.39
	Other-Residential	51.14	4.16	0.20	0.35
	Single Family	63.76	2.18	0.01	0.01
	Total	590	56	5	7
5 PM	Commercial	234.00	24.22	1.68	3.19
	Commuting	13.60	19.12	31.10	6.08
	Educational	9.15	0.42	0.01	0.01
	Hotels	0.09	0.01	0.00	0.00
	Industrial	24.21	2.38	0.13	0.24
	Other-Residential	60.30	4.96	0.23	0.42
	Single Family	81.82	2.81	0.01	0.01
	Total	423	54	33	10

Economic Loss

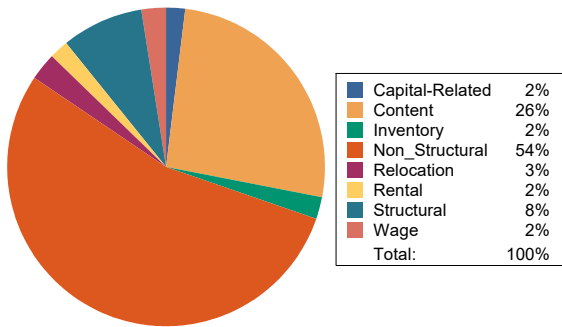
The total economic loss estimated for the earthquake is 14,140.33 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

Building-Related Losses

The building losses are broken into two categories: direct building losses and business interruption losses. The direct building losses are the estimated costs to repair or replace the damage caused to the building and its contents. The business interruption losses are the losses associated with inability to operate a business because of the damage sustained during the earthquake. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the earthquake.

The total building-related losses were 9,502.54 (millions of dollars); 9 % of the estimated losses were related to the business interruption of the region. By far, the largest loss was sustained by the residential occupancies which made up over 48 % of the total loss. Table 11 below provides a summary of the losses associated with the building damage.

Earthquake Losses by Loss Type (\$ millions)



Earthquake Losses by Occupancy Type (\$ millions)

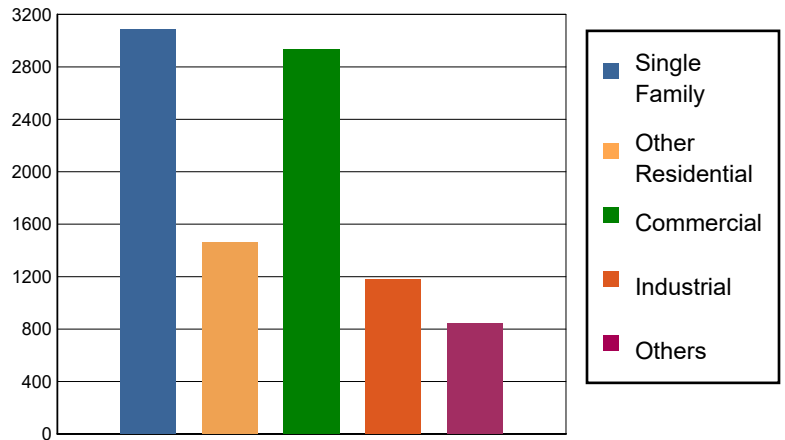


Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	15.2449	187.9498	8.8779	21.1683	233.2409
	Capital-Related	0.0000	6.4831	160.4880	5.3362	3.9647	176.2720
	Rental	21.3890	51.4957	97.5467	5.3129	8.4987	184.2430
	Relocation	56.9317	31.8503	118.6340	26.2731	41.7867	275.4758
	Subtotal	78.3207	105.0740	564.6185	45.8001	75.4184	869.2317
Capital Stock Losses							
	Structural	288.6425	112.9291	236.3097	89.0327	68.4835	795.3975
	Non_Structural	1965.6924	953.7923	1226.3699	570.7607	425.1448	5,141.7601
	Content	754.7972	292.2044	770.8708	411.1887	257.8586	2,486.9197
	Inventory	0.0000	0.0000	133.4530	62.5635	13.2111	209.2276
	Subtotal	3009.1321	1358.9258	2367.0034	1133.5456	764.6980	8633.3049
	Total	3087.45	1464.00	2931.62	1179.35	840.12	9502.54

Transportation and Utility Lifeline Losses

For the transportation and utility lifeline systems, Hazus computes the direct repair cost for each component only. There are no losses computed by Hazus for business interruption due to lifeline outages. Tables 12 & 13 provide a detailed breakdown in the expected lifeline losses.

Table 12: Transportation System Economic Losses
(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Highway	Segments	70821.6800	0.0000	0.00
	Bridges	52322.3969	67.4337	0.13
	Tunnels	851.2123	0.0651	0.01
	Subtotal	123995.2892	67.4988	
Railways	Segments	57438.7888	0.0000	0.00
	Bridges	8142.3900	9.8825	0.12
	Tunnels	1.8495	0.0011	0.06
	Facilities	186.4100	9.4780	5.08
	Subtotal	65769.4383	19.3616	
Light Rail	Segments	5403.2756	0.0000	0.00
	Bridges	15.3529	0.0005	0.00
	Tunnels	0.0000	0.0000	0.00
	Facilities	4154.0000	131.5260	3.17
	Subtotal	9572.6285	131.5265	
Bus	Facilities	69.2154	3.2847	4.75
	Subtotal	69.2154	3.2847	
Ferry	Facilities	33.2750	2.2467	6.75
	Subtotal	33.2750	2.2467	
Port	Facilities	1368.4522	92.7295	6.78
	Subtotal	1368.4522	92.7295	
Airport	Facilities	2593.1933	109.1864	4.21
	Runways	1122.6883	0.0000	0.00
	Subtotal	3715.8816	109.1864	
Total		204,524.18	425.83	

Table 13: Utility System Economic Losses

(Millions of dollars)

System	Component	Inventory Value	Economic Loss	Loss Ratio (%)
Potable Water	Pipelines	0.0000	0.0000	0.00
	Facilities	864.4680	9.2850	1.07
	Distribution Lines	3367.7767	8.1776	0.24
	Subtotal	4232.2447	17.4626	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	28028.1434	467.0357	1.67
	Distribution Lines	2020.6660	4.1078	0.20
	Subtotal	30048.8094	471.1435	
Natural Gas	Pipelines	11323.0566	0.0000	0.00
	Facilities	41.2435	0.0749	0.18
	Distribution Lines	1347.1107	1.4073	0.10
	Subtotal	12711.4108	1.4822	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	1.8880	0.0772	4.09
	Subtotal	1.8880	0.0772	
Electrical Power	Facilities	83609.6867	3721.1839	4.45
	Subtotal	83609.6867	3721.1839	
Communication	Facilities	35.8720	0.6125	1.71
	Subtotal	35.8720	0.6125	
	Total	130,639.91	4,211.96	

Appendix A: County Listing for the Region

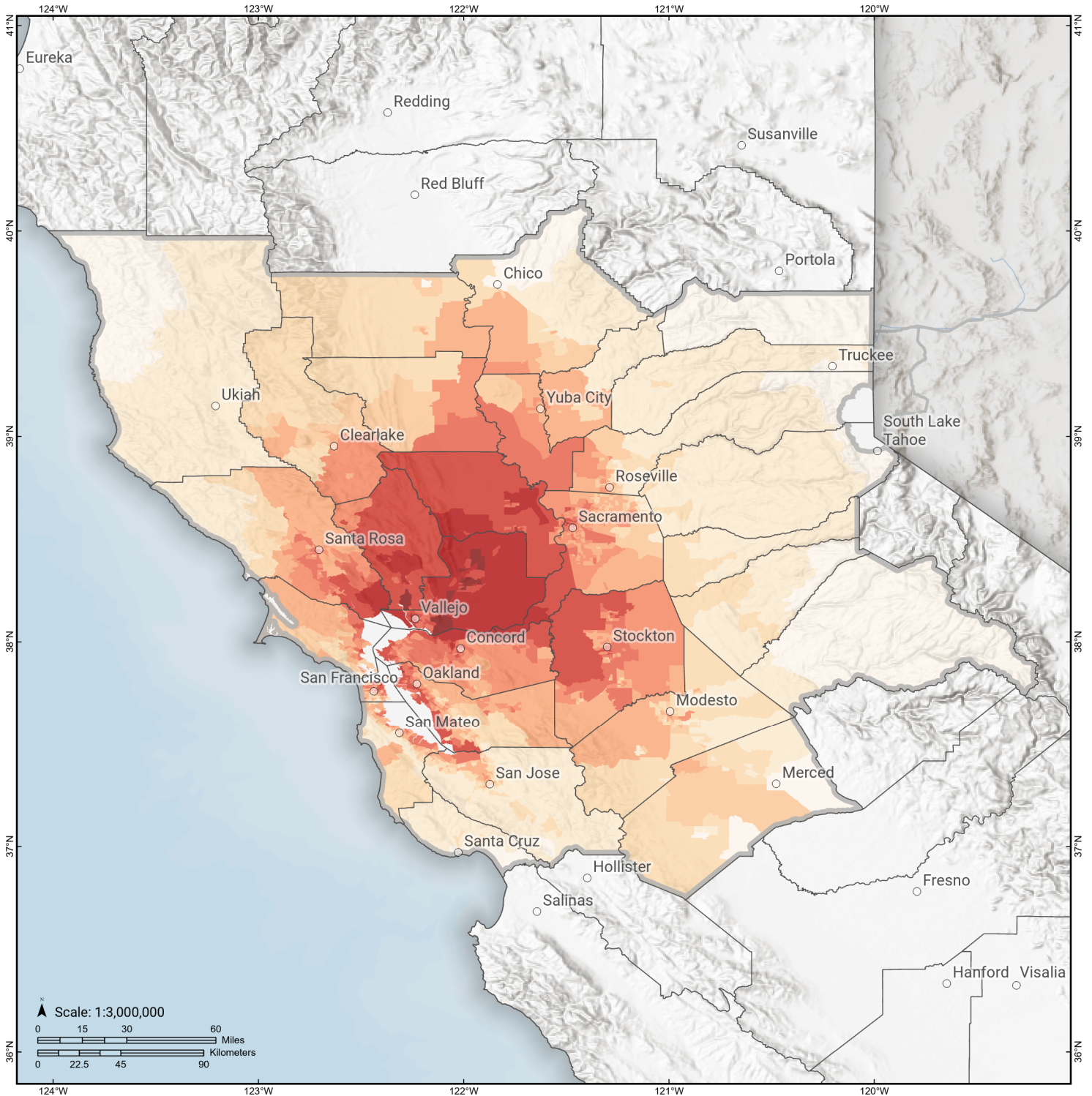
Alameda,CA
Amador,CA
Butte,CA
Calaveras,CA
Colusa,CA
Contra Costa,CA
El Dorado,CA
Glenn,CA
Lake,CA
Marin,CA
Mendocino,CA
Merced,CA
Napa,CA
Nevada,CA
Placer,CA
Sacramento,CA
San Francisco,CA
San Joaquin,CA
San Mateo,CA
Santa Clara,CA
Santa Cruz,CA
Sierra,CA
Solano,CA
Sonoma,CA
Stanislaus,CA
Sutter,CA
Tuolumne,CA
Yolo,CA
Yuba,CA

Appendix B: Regional Population and Building Value Data

State	County Name	Population	Building Value (millions of dollars)		
			Residential	Non-Residential	Total
California	Alameda	1,682,353	209,951	122,639	332,590
	Amador	40,474	5,608	2,517	8,125
	Butte	211,632	25,875	16,639	42,514
	Calaveras	45,292	8,305	4,893	13,199
	Colusa	21,839	2,244	2,024	4,268
	Contra Costa	1,165,927	158,118	60,339	218,458
	El Dorado	191,185	34,907	9,704	44,611
	Glenn	28,917	2,791	3,717	6,508
	Lake	68,163	9,699	4,530	14,229
	Marin	262,321	47,738	15,030	62,769
	Mendocino	91,601	14,237	8,510	22,748
	Merced	281,202	25,194	26,098	51,292
	Napa	138,019	20,517	13,045	33,563
	Nevada	102,241	17,908	6,108	24,016
	Placer	404,739	69,985	24,193	94,179
	Sacramento	1,585,055	179,811	83,911	263,723
	San Francisco	873,965	108,848	46,020	154,869
	San Joaquin	779,233	82,706	56,882	139,589
	San Mateo	764,442	110,372	44,995	155,368
	Santa Clara	1,936,259	261,111	120,471	381,582
	Santa Cruz	270,861	36,147	18,805	54,952
	Sierra	3,236	596	419	1,015
	Solano	453,491	55,802	26,393	82,195
	Sonoma	488,863	68,827	35,781	104,609
	Stanislaus	552,878	62,937	37,511	100,449
	Sutter	99,633	10,618	6,448	17,066
	Tuolumne	55,620	8,964	3,507	12,471
Yolo	216,403	24,130	18,343	42,473	
Yuba	81,575	8,161	4,677	12,839	
Total Region		12,897,419	1,672,107	824,149	2,496,269

Great Valley 04b Gordon Valley

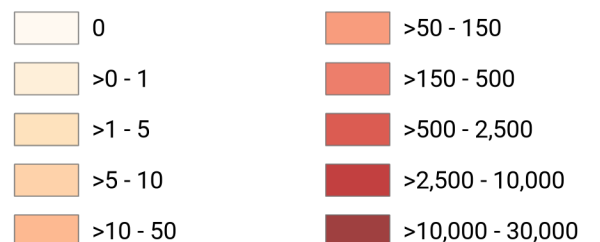
Debris Generated by Census Tract



Study Region: Great Valley 04b Gordon Valley
Scenario: greatvalley04bgordon_m6p77_se

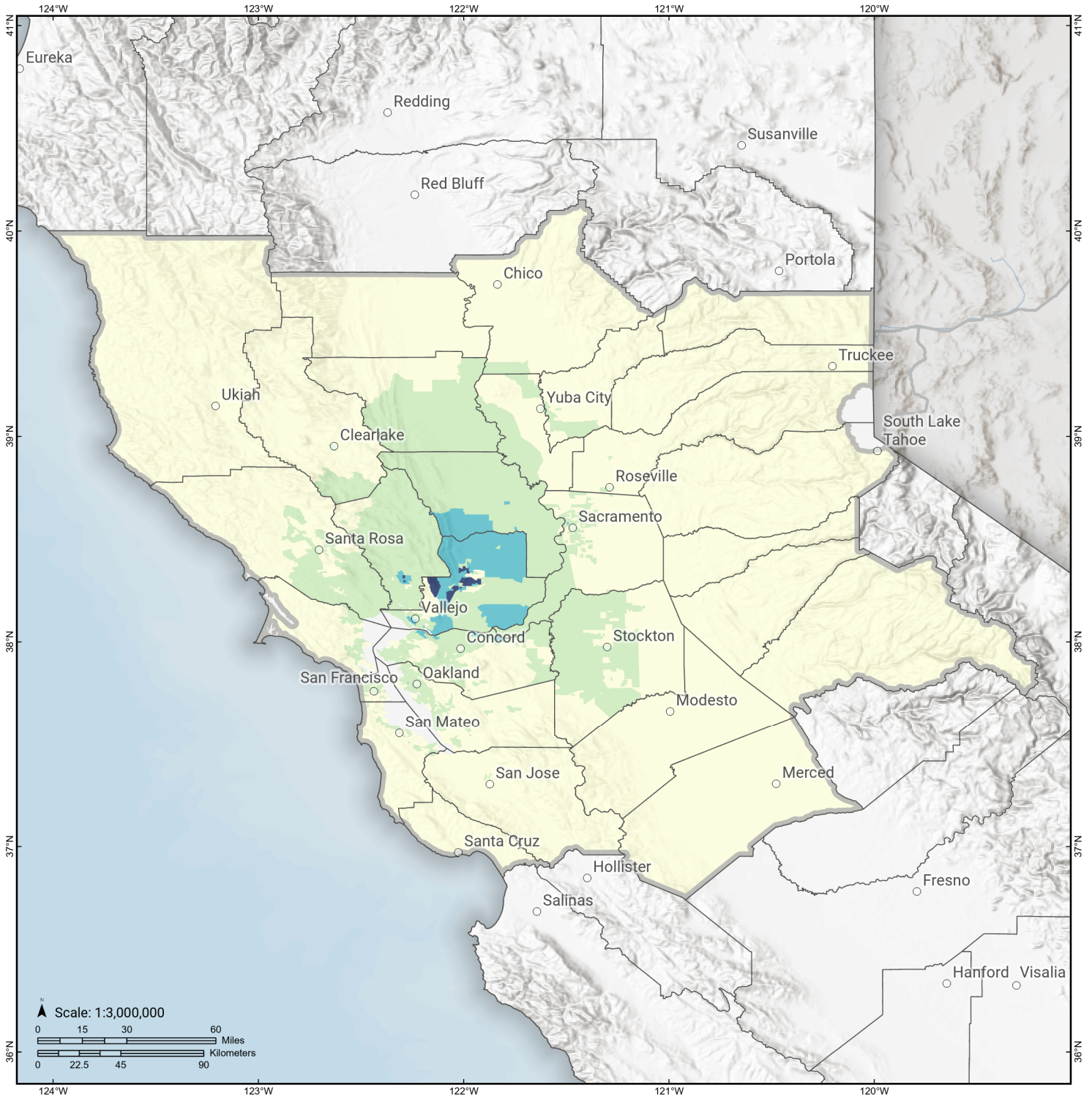


Debris Generated (in tons)



Great Valley 04b Gordon Valley

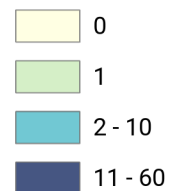
Displaced Households by Census Tract



Study Region: Great Valley 04b Gordon Valley
Scenario: greatvalley04bgordon_m6p77_se

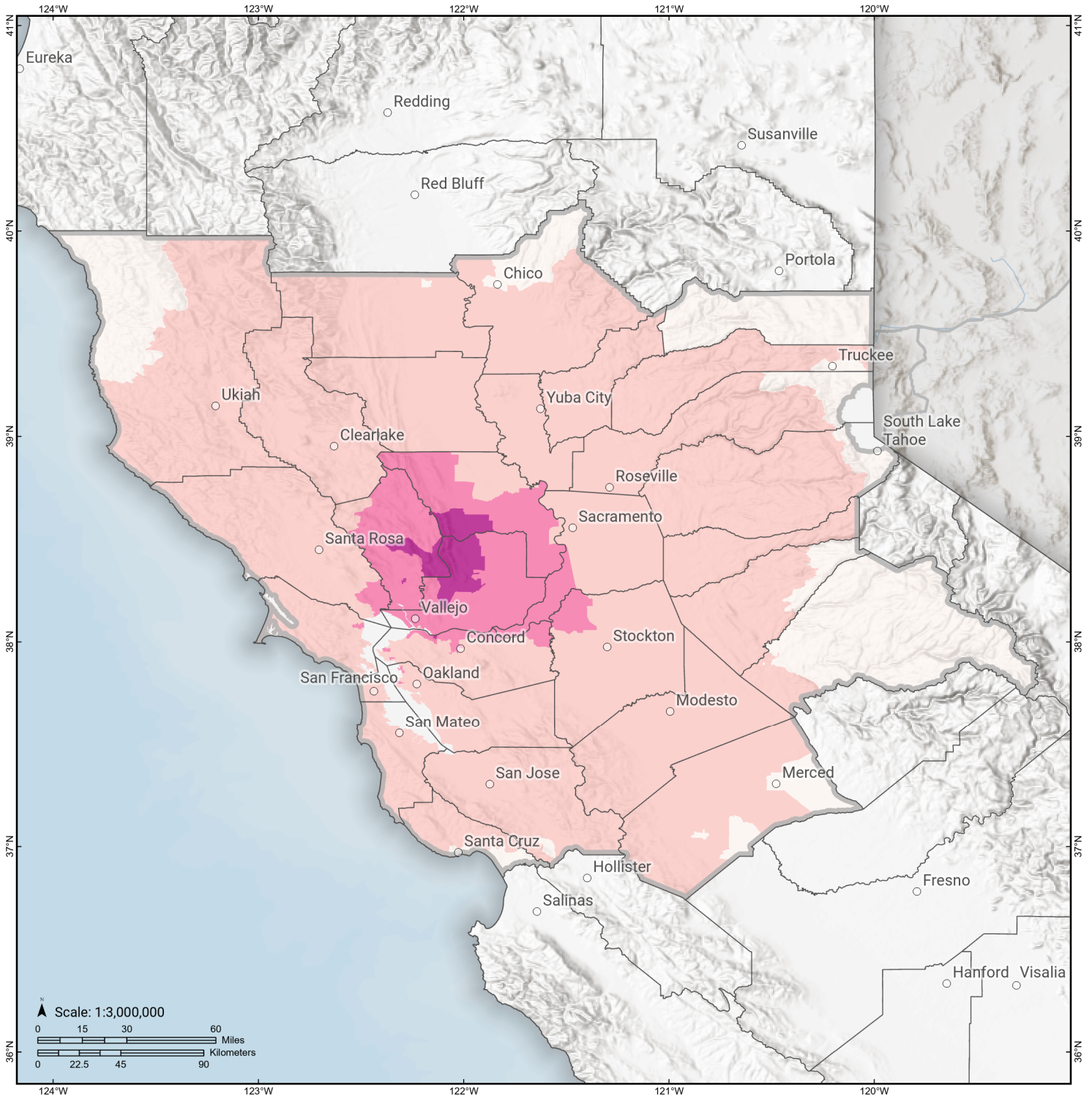


Displaced Households



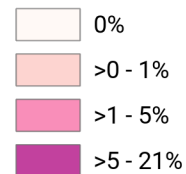
Great Valley 04b Gordon Valley

Loss Ratio by Census Tract



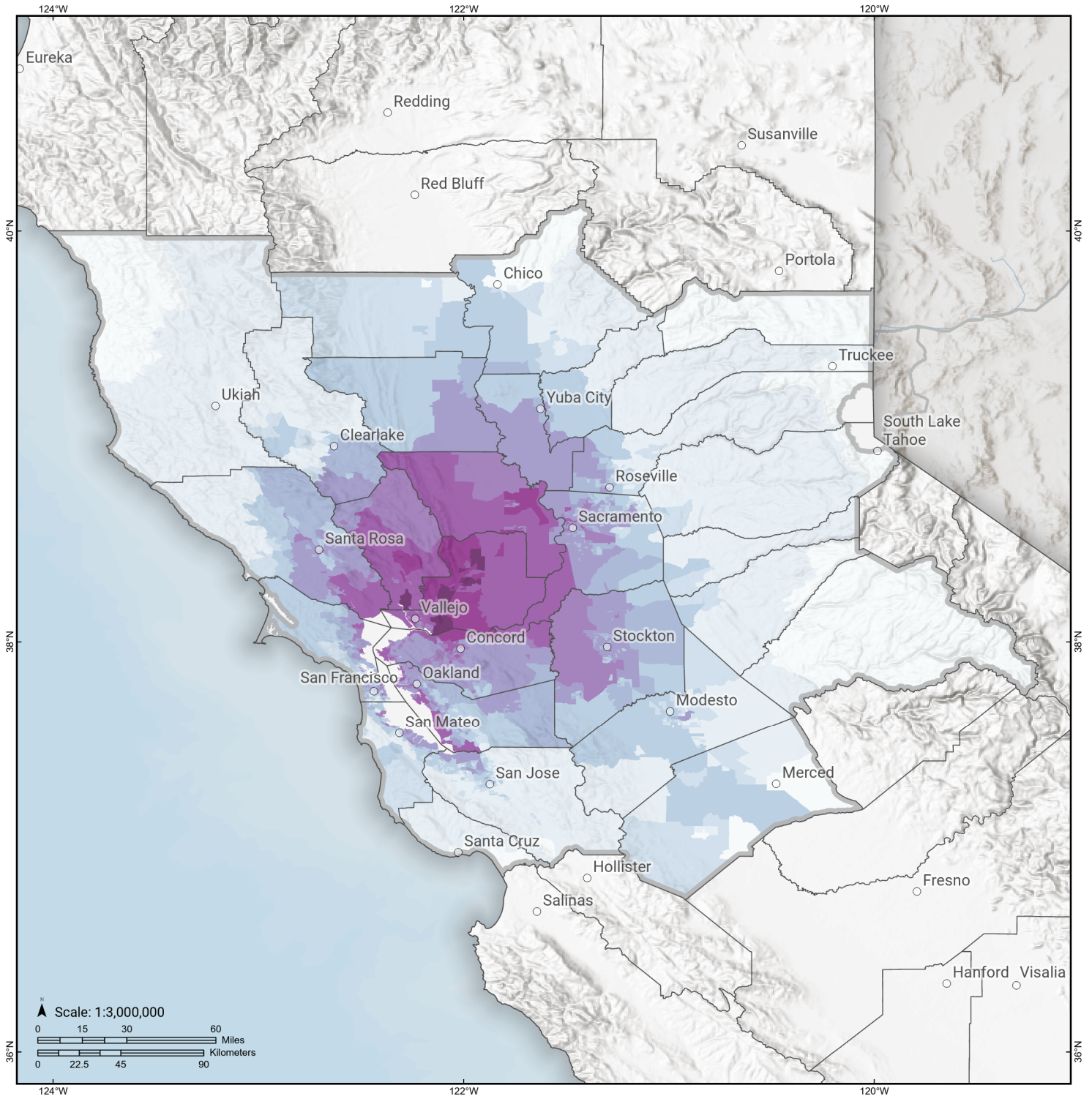
Study Region: Great Valley 04b Gordon Valley
Scenario: greatvalley04bgordon_m6p77_se

Loss Ratio (ratio of building related economic loss to exposed value of buildings)



Great Valley 04b Gordon Valley

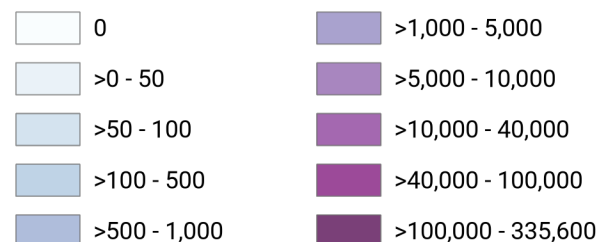
Total Building Related Economic Loss by Census Tract



Study Region: Great Valley 04b Gordon Valley
Scenario: greatvalley04bgordon_m6p77_se



Economic Loss (in thousands of USD \$)



Building Damage by Count by General Occupancy

April 15, 2024

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Alameda						
<i>Government</i>	10,219	277	32	0	0	10,528
<i>Agriculture</i>	399	18	5	0	0	422
<i>Commercial</i>	30,118	1,597	267	7	0	31,989
<i>Religion</i>	1,872	99	15	0	0	1,986
<i>Single Family</i>	339,793	4,358	22	0	0	344,173
<i>Other Residential</i>	59,062	2,107	222	5	0	61,396
<i>Education</i>	1,081	30	6	0	0	1,117
<i>Industrial</i>	9,611	499	92	3	0	10,205
Amador						
<i>Industrial</i>	235	0	0	0	0	235
<i>Single Family</i>	14,962	0	0	0	0	14,962
<i>Other Residential</i>	1,036	1	0	0	0	1,037
<i>Education</i>	23	0	0	0	0	23
<i>Government</i>	32	0	0	0	0	32
<i>Agriculture</i>	44	0	0	0	0	44
<i>Religion</i>	45	0	0	0	0	45
<i>Commercial</i>	1,367	1	0	0	0	1,368
Butte						

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Government</i>	147	0	0	0	0	147
<i>Religion</i>	530	1	0	0	0	531
<i>Agriculture</i>	508	1	0	0	0	510
<i>Commercial</i>	6,380	4	0	0	0	6,385
<i>Industrial</i>	1,520	2	0	0	0	1,522
<i>Single Family</i>	50,278	5	0	0	0	50,283
<i>Other Residential</i>	21,470	27	1	0	0	21,498
<i>Education</i>	172	0	0	0	0	172
Calaveras						
<i>Government</i>	84	0	0	0	0	84
<i>Other Residential</i>	2,558	1	0	0	0	2,559
<i>Education</i>	35	0	0	0	0	35
<i>Religion</i>	130	0	0	0	0	130
<i>Agriculture</i>	2,206	1	0	0	0	2,207
<i>Commercial</i>	1,413	0	0	0	0	1,413
<i>Industrial</i>	466	0	0	0	0	466
<i>Single Family</i>	22,148	0	0	0	0	22,148
Colusa						
<i>Agriculture</i>	139	3	0	0	0	142
<i>Religion</i>	56	2	0	0	0	58
<i>Commercial</i>	776	16	2	0	0	794
<i>Industrial</i>	110	2	0	0	0	113
<i>Other Residential</i>	931	21	2	0	0	954
<i>Single Family</i>	5,886	68	0	0	0	5,954
<i>Government</i>	32	0	0	0	0	32

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Education</i>	33	0	0	0	0	33
Contra Costa						
<i>Commercial</i>	16,102	1,580	285	23	1	17,991
<i>Agriculture</i>	670	64	14	2	0	749
<i>Religion</i>	1,070	125	28	3	0	1,226
<i>Single Family</i>	262,999	18,700	236	0	0	281,935
<i>Other Residential</i>	25,440	3,066	596	22	0	29,124
<i>Industrial</i>	4,024	581	133	10	0	4,749
<i>Government</i>	4,540	403	74	6	0	5,024
<i>Education</i>	630	20	3	0	0	653
El Dorado						
<i>Other Residential</i>	10,416	4	0	0	0	10,420
<i>Industrial</i>	1,199	0	0	0	0	1,199
<i>Education</i>	128	0	0	0	0	128
<i>Single Family</i>	71,424	0	0	0	0	71,424
<i>Commercial</i>	4,768	0	0	0	0	4,768
<i>Government</i>	100	0	0	0	0	100
<i>Religion</i>	180	0	0	0	0	180
<i>Agriculture</i>	161	0	0	0	0	161
Glenn						
<i>Other Residential</i>	2,146	6	0	0	0	2,152
<i>Government</i>	99	0	0	0	0	99
<i>Education</i>	35	0	0	0	0	35
<i>Industrial</i>	254	0	0	0	0	254
<i>Single Family</i>	7,415	2	0	0	0	7,417

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Lake	<i>Commercial</i>	883	1	0	0	0	885
	<i>Agriculture</i>	1,362	3	0	0	0	1,365
	<i>Religion</i>	89	0	0	0	0	89
	<i>Agriculture</i>	161	0	0	0	0	161
	<i>Single Family</i>	21,602	31	0	0	0	21,633
	<i>Other Residential</i>	14,375	212	14	0	0	14,601
	<i>Education</i>	68	0	0	0	0	68
	<i>Industrial</i>	353	1	0	0	0	354
	<i>Commercial</i>	2,083	7	0	0	0	2,091
Marin	<i>Religion</i>	139	1	0	0	0	140
	<i>Government</i>	78	0	0	0	0	78
	<i>Other Residential</i>	7,693	173	24	0	0	7,890
	<i>Government</i>	139	3	0	0	0	143
	<i>Education</i>	272	2	0	0	0	274
	<i>Commercial</i>	8,004	241	25	0	0	8,270
	<i>Religion</i>	312	7	0	0	0	319
	<i>Agriculture</i>	182	6	1	0	0	190
	<i>Single Family</i>	75,841	877	5	0	0	76,724
Mendocino	<i>Industrial</i>	1,432	89	14	0	0	1,535
	<i>Commercial</i>	3,436	0	0	0	0	3,436
	<i>Religion</i>	216	0	0	0	0	216
	<i>Agriculture</i>	184	0	0	0	0	184

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Single Family</i>	25,969	0	0	0	0	25,969
<i>Other Residential</i>	7,058	2	0	0	0	7,060
<i>Government</i>	83	0	0	0	0	83
<i>Education</i>	101	0	0	0	0	101
<i>Industrial</i>	869	0	0	0	0	869
Merced						
<i>Education</i>	163	0	0	0	0	163
<i>Government</i>	171	0	0	0	0	171
<i>Commercial</i>	4,753	1	0	0	0	4,754
<i>Agriculture</i>	7,646	7	0	0	0	7,653
<i>Religion</i>	345	0	0	0	0	345
<i>Industrial</i>	1,022	0	0	0	0	1,022
<i>Single Family</i>	63,598	0	0	0	0	63,598
<i>Other Residential</i>	10,784	3	0	0	0	10,787
Napa						
<i>Commercial</i>	2,387	1,178	397	55	4	4,021
<i>Agriculture</i>	229	87	28	4	0	349
<i>Religion</i>	91	40	15	2	0	148
<i>Single Family</i>	25,936	12,159	666	0	0	38,761
<i>Other Residential</i>	3,887	2,208	794	86	3	6,978
<i>Government</i>	61	28	13	2	0	103
<i>Education</i>	99	24	7	2	0	132
<i>Industrial</i>	820	383	147	16	1	1,367
Nevada						
<i>Commercial</i>	2,835	0	0	0	0	2,835

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Religion</i>	189	0	0	0	0	189
<i>Government</i>	60	0	0	0	0	60
<i>Agriculture</i>	132	0	0	0	0	132
<i>Single Family</i>	43,280	0	0	0	0	43,280
<i>Other Residential</i>	6,383	1	0	0	0	6,384
<i>Education</i>	108	0	0	0	0	108
<i>Industrial</i>	1,161	0	0	0	0	1,161
Placer						
<i>Education</i>	231	0	0	0	0	231
<i>Commercial</i>	8,510	26	2	0	0	8,538
<i>Government</i>	376	1	0	0	0	377
<i>Agriculture</i>	257	1	0	0	0	258
<i>Religion</i>	381	1	0	0	0	382
<i>Industrial</i>	2,692	11	1	0	0	2,703
<i>Other Residential</i>	14,793	47	3	0	0	14,843
<i>Single Family</i>	134,523	196	0	0	0	134,719
Sacramento						
<i>Single Family</i>	379,199	7,574	66	1	0	386,840
<i>Industrial</i>	6,538	191	26	1	0	6,756
<i>Other Residential</i>	54,627	1,633	149	3	0	56,413
<i>Education</i>	821	8	1	0	0	829
<i>Agriculture</i>	603	15	3	0	0	621
<i>Religion</i>	1,623	69	10	0	0	1,702
<i>Government</i>	574	39	6	0	0	619

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Commercial</i>	25,275	878	133	9	0	26,295
San Francisco						
<i>Single Family</i>	148,816	1,739	145	2	0	150,703
<i>Other Residential</i>	42,963	1,419	146	1	0	44,529
<i>Government</i>	268	19	3	0	0	289
<i>Education</i>	556	15	2	0	0	572
<i>Industrial</i>	3,674	162	24	0	0	3,860
<i>Commercial</i>	20,127	1,077	138	2	0	21,344
<i>Religion</i>	1,306	35	4	0	0	1,345
<i>Agriculture</i>	158	4	0	0	0	162
San Joaquin						
<i>Commercial</i>	12,569	269	26	0	0	12,864
<i>Agriculture</i>	733	18	2	0	0	753
<i>Religion</i>	858	17	2	0	0	877
<i>Government</i>	297	6	1	0	0	304
<i>Single Family</i>	184,769	3,767	378	8	0	188,922
<i>Other Residential</i>	21,033	693	78	1	0	21,805
<i>Education</i>	393	2	0	0	0	395
<i>Industrial</i>	4,814	103	11	0	0	4,928
San Mateo						
<i>Religion</i>	728	7	0	0	0	736
<i>Agriculture</i>	534	4	0	0	0	539
<i>Government</i>	295	3	0	0	0	299
<i>Commercial</i>	14,240	146	9	0	0	14,395
<i>Industrial</i>	4,409	58	5	0	0	4,472

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Other Residential</i>	22,227	212	13	0	0	22,453
<i>Single Family</i>	159,367	563	1	0	0	159,931
<i>Education</i>	488	1	0	0	0	489
Santa Clara						
<i>Other Residential</i>	59,006	147	7	0	0	59,160
<i>Single Family</i>	427,075	143	1	0	0	427,219
<i>Government</i>	498	3	0	0	0	502
<i>Education</i>	1,172	1	0	0	0	1,173
<i>Industrial</i>	9,410	22	1	0	0	9,433
<i>Commercial</i>	35,377	87	5	0	0	35,469
<i>Religion</i>	1,536	3	0	0	0	1,540
<i>Agriculture</i>	893	2	0	0	0	895
Santa Cruz						
<i>Religion</i>	359	0	0	0	0	359
<i>Agriculture</i>	840	0	0	0	0	840
<i>Single Family</i>	68,870	0	0	0	0	68,870
<i>Other Residential</i>	14,890	2	0	0	0	14,892
<i>Industrial</i>	1,819	0	0	0	0	1,819
<i>Education</i>	225	0	0	0	0	225
<i>Commercial</i>	6,694	0	0	0	0	6,694
<i>Government</i>	127	0	0	0	0	127
Sierra						
<i>Single Family</i>	1,858	0	0	0	0	1,858
<i>Other Residential</i>	153	0	0	0	0	153
<i>Industrial</i>	66	0	0	0	0	66

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Education</i>	14	0	0	0	0	14
<i>Commercial</i>	141	0	0	0	0	141
<i>Religion</i>	12	0	0	0	0	12
<i>Agriculture</i>	7	0	0	0	0	7
<i>Government</i>	16	0	0	0	0	16
Solano						
<i>Religion</i>	203	150	83	16	2	454
<i>Agriculture</i>	99	92	45	8	1	245
<i>Government</i>	65	55	29	3	0	152
<i>Commercial</i>	3,087	2,645	1,301	205	30	7,268
<i>Single Family</i>	58,566	55,716	6,648	37	0	120,968
<i>Industrial</i>	871	765	410	50	5	2,101
<i>Other Residential</i>	5,600	4,608	1,632	440	37	12,317
<i>Education</i>	140	65	19	1	0	225
Sonoma						
<i>Other Residential</i>	23,634	1,253	143	3	0	25,033
<i>Government</i>	304	11	3	0	0	319
<i>Education</i>	361	5	1	0	0	367
<i>Religion</i>	550	23	3	0	0	576
<i>Commercial</i>	11,489	537	80	3	0	12,110
<i>Agriculture</i>	1,220	65	17	1	0	1,304
<i>Single Family</i>	138,478	3,527	23	0	0	142,028
<i>Industrial</i>	3,602	189	32	2	0	3,825
Stanislaus						
<i>Other Residential</i>	19,529	38	2	0	0	19,569

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Single Family</i>	142,677	47	0	0	0	142,724
<i>Education</i>	307	0	0	0	0	307
<i>Government</i>	679	1	0	0	0	680
<i>Industrial</i>	3,468	7	0	0	0	3,475
<i>Commercial</i>	10,347	21	1	0	0	10,369
<i>Religion</i>	455	1	0	0	0	456
<i>Agriculture</i>	1,237	2	0	0	0	1,239
Sutter						
<i>Other Residential</i>	3,042	66	5	0	0	3,113
<i>Industrial</i>	623	12	1	0	0	636
<i>Education</i>	62	0	0	0	0	62
<i>Government</i>	76	1	0	0	0	77
<i>Single Family</i>	24,327	184	0	0	0	24,512
<i>Commercial</i>	2,025	25	2	0	0	2,052
<i>Agriculture</i>	1,085	34	6	0	0	1,125
<i>Religion</i>	152	2	0	0	0	154
Tuolumne						
<i>Education</i>	57	0	0	0	0	57
<i>Government</i>	143	0	0	0	0	143
<i>Commercial</i>	1,576	0	0	0	0	1,576
<i>Religion</i>	121	0	0	0	0	121
<i>Agriculture</i>	82	0	0	0	0	82
<i>Industrial</i>	383	0	0	0	0	383
<i>Other Residential</i>	4,962	0	0	0	0	4,962
<i>Single Family</i>	21,645	0	0	0	0	21,645

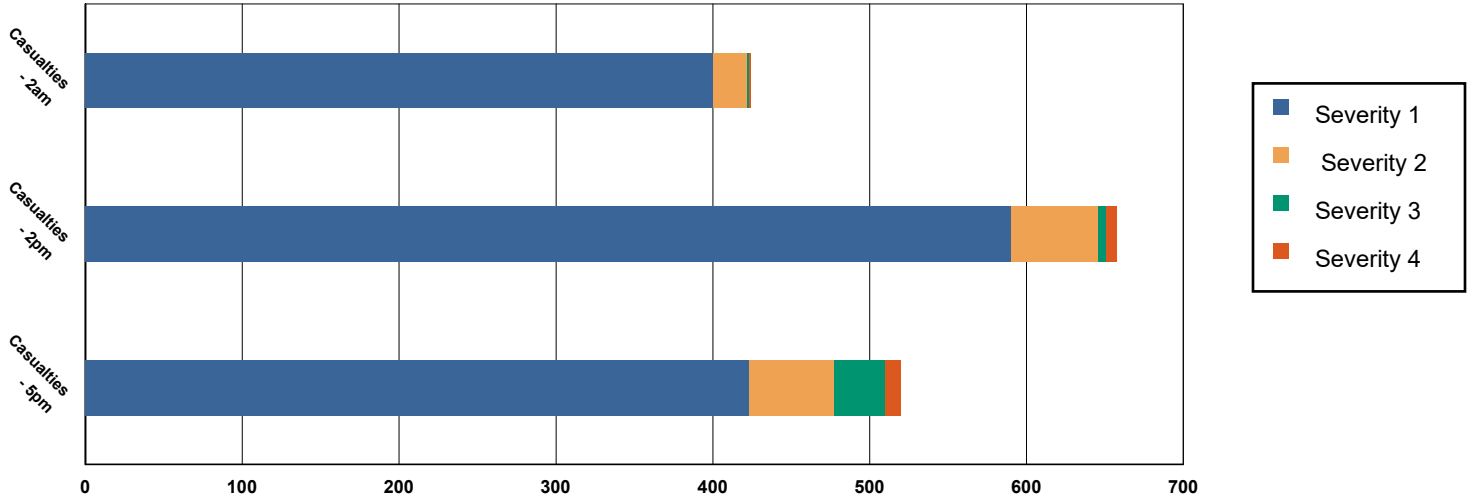
	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
Yolo						
<i>Industrial</i>	874	180	58	5	0	1,117
<i>Other Residential</i>	7,958	1,657	231	15	1	9,861
<i>Education</i>	118	11	3	0	0	131
<i>Government</i>	90	16	5	0	0	111
<i>Single Family</i>	35,479	6,768	341	1	0	42,589
<i>Commercial</i>	3,327	682	198	17	1	4,225
<i>Agriculture</i>	223	43	12	2	0	281
<i>Religion</i>	192	38	10	2	0	242
Yuba						
<i>Government</i>	591	0	0	0	0	591
<i>Education</i>	54	0	0	0	0	54
<i>Other Residential</i>	6,947	69	4	0	0	7,021
<i>Religion</i>	98	0	0	0	0	98
<i>Commercial</i>	1,188	10	1	0	0	1,199
<i>Agriculture</i>	91	1	0	0	0	92
<i>Single Family</i>	18,805	62	0	0	0	18,867
<i>Industrial</i>	401	3	0	0	0	404
Total	3,822,296	152,600	16,939	1,095	89	3,993,019
Region Total	3,822,296	152,600	16,939	1,095	89	3,993,019

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Casualties Summary Report

April 15, 2024

Region Total Casualties



Injury Severity Level

Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

Alameda

Casualties - 2am

	Severity 1	Severity 2	Severity 3	Severity 4	Total
Single Family	6	0	0	0	6
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	1	0	0	0	1
Commercial	1	0	0	0	1
Other-Residential	17	1	0	0	18
Total Casualties - 2am	24	1	0	0	25

Casualties - 2pm

Industrial	4	0	0	0	4
Educational	6	0	0	0	7
Other-Residential	5	0	0	0	6
Single Family	2	0	0	0	2
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	34	2	0	0	36

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Alameda					
Total Casualties - 2pm	52	3	0	0	54
Casualties - 5pm					
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	2	0	0	0	2
<i>Commercial</i>	22	1	0	0	24
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	1	0	0	0	1
<i>Industrial</i>	2	0	0	0	3
<i>Other-Residential</i>	6	0	0	0	7
Total Casualties - 5pm	34	2	0	0	36
Amador					
Casualties - 2am					
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Butte					
Casualties - 2am					
<i>Industrial</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Butte					
Casualties - 2am					
Commercial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Single Family	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Other-Residential	0	0	0	0	0
Hotels	0	0	0	0	0
Commercial	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Calaveras					
Casualties - 2am					
Other-Residential	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Hotels	0	0	0	0	0
Single Family	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Calaveras					
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Colusa					
Casualties - 2am					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Contra Costa					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	18	1	0	0	19
<i>Single Family</i>	30	0	0	0	30
<i>Commercial</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	49	1	0	0	50
Casualties - 2pm					
<i>Other-Residential</i>	5	0	0	0	6
<i>Industrial</i>	5	0	0	0	6
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	9	0	0	0	9
<i>Educational</i>	7	0	0	0	7
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	45	3	0	0	49
Total Casualties - 2pm	71	4	0	0	76
Casualties - 5pm					
<i>Educational</i>	1	0	0	0	1
<i>Commuting</i>	0	0	1	0	1
<i>Single Family</i>	11	0	0	0	11
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	3	0	0	0	3
<i>Other-Residential</i>	6	0	0	0	7
<i>Commercial</i>	31	2	0	0	33
Total Casualties - 5pm	52	3	1	0	56
El Dorado					
Casualties - 2am					
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
El Dorado					
Casualties - 2pm					
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Glenn					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Glenn					
Total Casualties - 5pm	0	0	0	0	0
Lake					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Marin					
Casualties - 2am					
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	1	0	0	0	1
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	2	0	0	0	2
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Marin					
Casualties - 2pm					
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	1
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	2	0	0	0	2
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2pm	4	0	0	0	4
Casualties - 5pm					
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	1	0	0	0	1
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	2	0	0	0	2
Mendocino					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Hotels</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Mendocino					
Casualties - 5pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Merced					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Napa					
Casualties - 2am					
<i>Commercial</i>	1	0	0	0	1
<i>Other-Residential</i>	17	2	0	0	19
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	20	1	0	0	21
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Napa					
Total Casualties - 2am	39	2	0	0	41
Casualties - 2pm					
<i>Educational</i>	17	3	0	1	20
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Industrial</i>	6	1	0	0	6
<i>Other-Residential</i>	5	0	0	0	5
<i>Single Family</i>	5	0	0	0	5
<i>Commercial</i>	40	5	0	1	46
Total Casualties - 2pm	72	9	1	1	84
Casualties - 5pm					
<i>Commercial</i>	25	3	0	0	29
<i>Single Family</i>	7	0	0	0	8
<i>Other-Residential</i>	6	1	0	0	7
<i>Commuting</i>	1	1	2	0	3
<i>Industrial</i>	4	0	0	0	4
<i>Educational</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 5pm	44	5	2	1	52
Nevada					
Casualties - 2am					
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Nevada					
Casualties - 5pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Placer					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Sacramento					
Casualties - 2am					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	7	0	0	0	7
<i>Commercial</i>	0	0	0	0	1
<i>Single Family</i>	11	0	0	0	12
<i>Hotels</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Sacramento					
Casualties - 2am					
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2am	19	0	0	0	20
Casualties - 2pm					
<i>Other-Residential</i>	3	0	0	0	3
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	3	0	0	0	3
<i>Commercial</i>	27	1	0	0	29
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	3	0	0	0	3
<i>Industrial</i>	2	0	0	0	2
Total Casualties - 2pm	37	2	0	0	39
Casualties - 5pm					
<i>Industrial</i>	1	0	0	0	1
<i>Educational</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	16	1	0	0	17
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	3	0	0	0	3
<i>Single Family</i>	4	0	0	0	4
Total Casualties - 5pm	24	1	0	0	25
San Francisco					
Casualties - 2am					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Other-Residential</i>	16	1	0	0	16
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	3	0	0	0	4
Total Casualties - 2am	20	1	0	0	21
Casualties - 2pm					
<i>Commercial</i>	24	1	0	0	26
<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	5	0	0	0	5
<i>Single Family</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	3	0	0	0	3
Total Casualties - 2pm	34	2	0	0	36

Injury Severity Level

	Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

San Francisco

Casualties - 5pm

<i>Educational</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	14	1	0	0	15
<i>Other-Residential</i>	6	0	0	0	6
<i>Single Family</i>	1	0	0	0	1
Total Casualties - 5pm	23	1	0	0	24

San Joaquin

Casualties - 2am

<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	11	1	0	0	11
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	3	0	0	0	3
Total Casualties - 2am	14	1	0	0	14

Casualties - 2pm

<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	1	0	0	0	1
<i>Educational</i>	1	0	0	0	1
<i>Single Family</i>	4	0	0	0	4
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	4	0	0	0	4
Total Casualties - 2pm	10	0	0	0	11

Casualties - 5pm

<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	4	0	0	0	4
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	3	0	0	0	3
<i>Other-Residential</i>	1	0	0	0	1
Total Casualties - 5pm	8	0	0	0	9

San Mateo

Casualties - 2am

<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	1	0	0	0	1
<i>Single Family</i>	1	0	0	0	1

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
San Mateo					
Casualties - 2am					
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 2am	2	0	0	0	2
Casualties - 2pm					
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Commercial	3	0	0	0	3
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2pm	4	0	0	0	4
Casualties - 5pm					
Commercial	2	0	0	0	2
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 5pm	3	0	0	0	3
Santa Clara					
Casualties - 2am					
Commuting	0	0	0	0	0
Educational	0	0	0	0	0
Single Family	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Commercial	0	0	0	0	0
Other-Residential	1	0	0	0	1
Total Casualties - 2am	1	0	0	0	1
Casualties - 2pm					
Industrial	0	0	0	0	0
Commercial	1	0	0	0	1
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Other-Residential	0	0	0	0	0
Educational	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Santa Clara					
Total Casualties - 2pm	2	0	0	0	2
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	1	0	0	0	1
Santa Cruz					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Sierra					
Casualties - 2am					
<i>Other-Residential</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Sierra					
Casualties - 2am					
Commercial	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Single Family	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Hotels	0	0	0	0	0
Educational	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Commuting	0	0	0	0	0
Single Family	0	0	0	0	0
Commercial	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Commuting	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Commercial	0	0	0	0	0
Single Family	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Solano					
Casualties - 2am					
Industrial	2	0	0	0	2
Other-Residential	68	8	0	1	77
Commercial	2	0	0	0	3
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Single Family	122	6	0	0	128
Hotels	0	0	0	0	0
Total Casualties - 2am	194	14	1	1	210
Casualties - 2pm					
Single Family	34	2	0	0	35
Other-Residential	21	2	0	0	24
Commercial	147	21	2	4	174
Educational	34	3	0	0	38
Commuting	1	1	1	0	3

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Solano					
Casualties - 2pm					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	15	2	0	0	18
Total Casualties - 2pm	252	31	4	5	292
Casualties - 5pm					
<i>Commercial</i>	100	14	1	2	118
<i>Other-Residential</i>	25	3	0	0	28
<i>Single Family</i>	45	2	0	0	47
<i>Educational</i>	3	0	0	0	3
<i>Commuting</i>	12	18	29	6	64
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	10	1	0	0	11
Total Casualties - 5pm	195	38	30	8	272
Sonoma					
Casualties - 2am					
<i>Single Family</i>	4	0	0	0	4
<i>Other-Residential</i>	4	0	0	0	4
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
Total Casualties - 2am	9	0	0	0	9
Casualties - 2pm					
<i>Single Family</i>	1	0	0	0	1
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	2	0	0	0	2
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	1	0	0	0	1
<i>Commercial</i>	7	0	0	0	7
Total Casualties - 2pm	13	1	0	0	13
Casualties - 5pm					
<i>Single Family</i>	2	0	0	0	2
<i>Commercial</i>	5	0	0	0	5
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	1	0	0	0	1
<i>Other-Residential</i>	1	0	0	0	2
Total Casualties - 5pm	9	0	0	0	9

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Stanislaus					
Casualties - 2am					
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Sutter					
Casualties - 2am					
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Industrial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Sutter					
Casualties - 2pm					
<i>Commercial</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	1	0	0	0	1
Casualties - 5pm					
<i>Commuting</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
Total Casualties - 5pm	1	0	0	0	1
Tuolumne					
Casualties - 2am					
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Tuolumne					
Total Casualties - 5pm	0	0	0	0	0
Yolo					
Casualties - 2am					
Single Family	14	0	0	0	14
Other-Residential	11	1	0	0	12
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Total Casualties - 2am	25	1	0	0	26
Casualties - 2pm					
Industrial	2	0	0	0	3
Hotels	0	0	0	0	0
Educational	8	0	0	0	9
Commuting	0	0	0	0	0
Commercial	19	2	0	0	22
Other-Residential	4	0	0	0	4
Single Family	4	0	0	0	4
Total Casualties - 2pm	38	3	0	0	41
Casualties - 5pm					
Other-Residential	4	0	0	0	4
Single Family	5	0	0	0	5
Commuting	0	0	0	0	1
Commercial	13	1	0	0	15
Hotels	0	0	0	0	0
Educational	2	0	0	0	2
Industrial	1	0	0	0	2
Total Casualties - 5pm	26	2	0	0	29
Yuba					
Casualties - 2am					
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Single Family	0	0	0	0	0
Commuting	0	0	0	0	0
Hotels	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
Commercial	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Yuba					
Casualties - 2pm					
<i>Commuting</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
Total Casualties - 2pm	0	0	0	0	0
Casualties - 5pm					
<i>Hotels</i>	0	0	0	0	0
<i>Educational</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	0	0	0	0	0
<i>Single Family</i>	0	0	0	0	0
<i>Commercial</i>	0	0	0	0	0
<i>Commuting</i>	0	0	0	0	0
Total Casualties - 5pm	0	0	0	0	0
Region Total	NA	NA	NA	NA	NA

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Debris Summary Report

April 15, 2024

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Alameda	38	28	66
Amador	0	0	0
Butte	0	0	0
Calaveras	0	0	0
Colusa	0	0	0
Contra Costa	42	48	89
El Dorado	0	0	0
Glenn	0	0	0
Lake	0	0	0
Marin	3	2	5
Mendocino	0	0	0
Merced	0	0	0
Napa	38	52	90
Nevada	0	0	0
Placer	1	0	1
Sacramento	20	15	34
San Francisco	42	8	50
San Joaquin	19	5	24
San Mateo	2	2	4

	Brick, Wood & Others	Concrete & Steel	Total
Santa Clara	2	1	2
Santa Cruz	0	0	0
Sierra	0	0	0
Solano	155	205	360
Sonoma	11	11	22
Stanislaus	0	0	1
Sutter	1	0	1
Tuolumne	0	0	0
Yolo	21	27	49
Yuba	0	0	0
Total	395	405	800
Region Total	395	405	800

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Losses For Buildings

April 15, 2024

All values are in thousands of dollars

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
California										
Colusa	408	3,876	2,249	402	0.10	88	134	144	101	7,401
Contra Costa	96,195	732,580	358,733	30,088	0.38	23,286	16,273	21,693	18,342	1,297,192
Mendocino	2	204	129	17	0.00	0	0	0	0	352
Napa	88,986	515,753	246,337	22,177	1.80	31,301	21,578	26,624	20,418	973,175
Alameda	53,365	394,586	211,116	17,545	0.13	15,552	13,501	18,551	14,792	739,009
Butte	132	1,246	769	125	0.00	24	11	16	20	2,343
Nevada	3	158	106	9	0.00	0	0	1	1	277
San Joaquin	15,799	133,883	75,901	9,269	0.11	4,217	2,018	2,344	2,881	246,312
Tuolumne	0	1	1	0	0.00	0	0	0	0	2

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
Solano	382,786	2,267,080	1,018,406	78,276	3.22	160,224	88,735	123,597	86,644	4,205,747
San Mateo	4,887	57,884	29,346	2,496	0.04	528	699	778	1,271	97,890
Yolo	50,565	354,202	186,275	17,568	0.95	16,688	12,421	14,889	11,474	664,082
Calaveras	12	182	133	42	0.00	1	2	2	2	376
Yuba	322	3,939	1,983	223	0.03	47	62	65	66	6,708
Glenn	49	405	267	86	0.01	5	5	5	6	828
San Francisco	33,380	124,774	70,211	4,238	0.10	8,981	6,402	7,182	12,747	267,915
Merced	104	654	495	248	0.00	6	2	2	3	1,516
Stanislaus	455	7,760	4,575	632	0.01	55	57	58	108	13,700
Sutter	1,323	13,039	7,470	1,582	0.08	169	94	111	148	23,935
Santa Clara	2,094	26,171	14,512	1,323	0.01	268	402	508	634	45,912
Sonoma	21,766	173,192	87,051	9,816	0.19	4,705	4,556	5,235	4,245	310,566
Placer	906	16,582	9,394	820	0.02	90	108	124	151	28,177
Marin	5,524	58,262	30,390	2,302	0.10	910	922	1,004	1,142	100,456
El Dorado	6	581	378	22	0.00	0	1	1	1	990
Amador	5	193	125	13	0.00	1	2	2	2	343
Sacramento	36,070	342,231	174,615	14,838	0.14	8,288	8,260	10,280	9,002	603,583
Lake	248	3,289	1,527	117	0.02	42	25	24	40	5,311

	Capital Stock Losses				Loss Ratio %	Income Losses				Total Loss
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss		Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	
Sierra	0	0	0	0	0.00	0	0	0	0	0
Santa Cruz	6	232	157	16	0.00	0	2	1	2	416
Total	795,398	5,232,937	2,532,653	214,291	0.26	275,476	176,272	233,241	184,243	9,644,512
Region Total	795,398	5,232,937	2,532,653	214,291	0.26	275,476	176,272	233,241	184,243	9,644,512

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Loss For Transportation

April 15, 2024

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Alameda								
Segments	0	0	0					0
Bridges	1,119	15	0					1,135
Tunnels	13	0	0					13
Facilities		2,049	0	95	8,137	164	15,304	25,749
Total	1,132	2,064	0	95	8,137	164	15,304	26,897
Amador								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	51	51
Total	0	0	0	0	0	0	51	51
Butte								
Segments	0	0	0					0
Bridges	6	0	0					6
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	102	102

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	6	0	0	0	0	0	102	108
Calaveras								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	102	102
Total	0	0	0	0	0	0	102	102
Colusa								
Segments	0	0	0					0
Bridges	18	1	0					19
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	217	217
Total	18	1	0	0	0	0	217	237
Contra Costa								
Segments	0	0	0					0
Bridges	8,381	736	0					9,117
Tunnels	42	1	0					43
Facilities		2,107	1,695	0	26,166	495	2,282	32,746
Total	8,424	2,844	1,695	0	26,166	495	2,282	41,907
El Dorado								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	21	0	0	231	252

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	21	0	0	231	252
Glenn								
Segments	0	0	0					0
Bridges	15	0	0					15
Tunnels	0	0	0					0
Facilities		0	0	0	37	0	51	88
Total	15	0	0	0	37	0	51	103
Lake								
Segments	0	0	0					0
Bridges	1	0	0					1
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	102	102
Total	1	0	0	0	0	0	102	103
Marin								
Segments	0	0	0					0
Bridges	1,650	0	0					1,650
Tunnels	0	0	0					0
Facilities		0	0	474	4,826	273	400	5,973
Total	1,650	0	0	474	4,826	273	400	7,623
Mendocino								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	48	0	0	108	155

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	48	0	0	108	156
Merced								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	1	0	0					1
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		3	0	2	0	0	136	142
Total	1	3	0	2	0	0	136	142
Napa								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	2,906	863	0					3,768
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		0	0	513	2,137	0	3,078	5,729
Total	2,906	863	0	513	2,137	0	3,078	9,497
Nevada								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	0	0	0					0
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		0	0	0	0	0	51	51
Total	0	0	0	0	0	0	51	51
Placer								
<i>Segments</i>	0	0	0					0
<i>Bridges</i>	8	0	0					8
<i>Tunnels</i>	0	0	0					0
<i>Facilities</i>		186	0	21	0	0	159	366

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	9	186	0	21	0	0	159	375
Sacramento								
Segments	0	0	0					0
Bridges	2,165	4	0					2,169
Tunnels	0	0	0					0
Facilities		109	12,165	181	6,500	147	32,067	51,171
Total	2,165	114	12,165	181	6,500	147	32,067	53,340
San Francisco								
Segments	0	0	0					0
Bridges	933	0	0					934
Tunnels	8	0	0					8
Facilities		0	112,227	207	10,044	218	1,313	124,010
Total	942	0	112,227	207	10,044	218	1,313	124,952
San Joaquin								
Segments	0	0	0					0
Bridges	341	11	0					353
Tunnels	0	0	0					0
Facilities		1,664	0	91	8,955	310	1,376	12,397
Total	341	1,676	0	91	8,955	310	1,376	12,750
San Mateo								
Segments	0	0	0					0
Bridges	427	0	0					427
Tunnels	1	0	0					1
Facilities		0	0	0	2,575	0	37,271	39,846

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	428	0	0	0	2,575	0	37,271	40,275
Santa Clara								
Segments	0	0	0					0
Bridges	83	0	0					83
Tunnels	0	0	0					0
Facilities		103	5,439	23	782	0	3,593	9,939
Total	83	103	5,439	23	782	0	3,593	10,022
Santa Cruz								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Sierra								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0
Solano								
Segments	0	0	0					0
Bridges	44,216	7,963	0					52,179
Tunnels	0	0	0					0
Facilities		1,817	0	1,446	17,037	639	6,288	27,227

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	44,216	9,780	0	1,446	17,037	639	6,288	79,406
Sonoma								
Segments	0	0	0					0
Bridges	867	235	0					1,102
Tunnels	0	0	0					0
Facilities		0	0	97	642	0	2,056	2,794
Total	867	235	0	97	642	0	2,056	3,896
Stanislaus								
Segments	0	0	0					0
Bridges	25	0	0					25
Tunnels	0	0	0					0
Facilities		154	0	43	0	0	231	427
Total	25	154	0	43	0	0	231	452
Sutter								
Segments	0	0	0					0
Bridges	136	1	0					137
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	548	548
Total	136	1	0	0	0	0	548	685
Tuolumne								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	0	0

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	0	0	0	0	0
Yolo								
Segments	0	0	0					0
Bridges	4,134	52	0					4,186
Tunnels	0	0	0					0
Facilities		1,286	0	0	4,890	0	1,967	8,143
Total	4,134	1,338	0	0	4,890	0	1,967	12,329
Yuba								
Segments	0	0	0					0
Bridges	1	0	0					1
Tunnels	0	0	0					0
Facilities		0	0	22	0	0	102	124
Total	1	0	0	22	0	0	102	125
Total	67,499	19,362	131,527	3,285	92,729	2,247	109,186	425,834
Region Total	67,499	19,362	131,527	3,285	92,729	2,247	109,186	425,834

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Direct Economic Loss For Utilities

April 15, 2024

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Alameda							
<i>Facilities</i>	725	37,318	0	0	117,139	62	155,243
<i>Pipelines</i>	256	129	0	0			385
Total	981	37,446	0	0	117,139	62	155,628
Amador							
<i>Facilities</i>	0	0	0	0	5,970	0	5,970
<i>Pipelines</i>	11	6	0	0			17
Total	11	6	0	0	5,970	0	5,987
Butte							
<i>Facilities</i>	0	492	0	0	34,995	0	35,487
<i>Pipelines</i>	34	17	0	0			51
Total	34	509	0	0	34,995	0	35,538
Calaveras							
<i>Facilities</i>	28	369	0	0	819	0	1,216

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	12	6	0	0			18
Total	40	375	0	0	819	0	1,234
Colusa							
<i>Facilities</i>	0	3,172	0	75	11,633	0	14,879
<i>Pipelines</i>	63	31	0	0			94
Total	63	3,203	0	75	11,633	0	14,973
Contra Costa							
<i>Facilities</i>	6,942	75,475	53	0	1,331,573	52	1,414,095
<i>Pipelines</i>	688	345	0	0			1,033
Total	7,630	75,820	53	0	1,331,573	52	1,415,128
El Dorado							
<i>Facilities</i>	28	492	0	0	13,128	1	13,649
<i>Pipelines</i>	31	15	0	0			46
Total	59	507	0	0	13,128	1	13,695
Glenn							
<i>Facilities</i>	0	123	0	0	136	0	259
<i>Pipelines</i>	31	16	0	0			46
Total	31	138	0	0	136	0	305
Lake							
<i>Facilities</i>	56	0	0	0	5,226	1	5,284
<i>Pipelines</i>	60	30	0	0			89

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Total	116	30	0	0	5,226	1	5,373
Marin							
<i>Facilities</i>	348	22,355	0	0	2,093	15	24,812
<i>Pipelines</i>	65	33	0	0			98
Total	414	22,388	0	0	2,093	15	24,910
Mendocino							
<i>Facilities</i>	0	369	0	0	350	1	720
<i>Pipelines</i>	48	24	0	0			71
Total	48	393	0	0	350	1	791
Merced							
<i>Facilities</i>	0	371	0	0	20,696	1	21,068
<i>Pipelines</i>	67	34	0	0			101
Total	67	405	0	0	20,696	1	21,169
Napa							
<i>Facilities</i>	0	67,267	0	0	59,085	64	126,415
<i>Pipelines</i>	456	229	0	0			685
Total	456	67,496	0	0	59,085	64	127,101
Nevada							
<i>Facilities</i>	0	738	0	0	1,492	1	2,231
<i>Pipelines</i>	15	8	0	0			23
Total	15	745	0	0	1,492	1	2,253

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Placer							
<i>Facilities</i>	0	5,434	0	0	25,366	7	30,807
<i>Pipelines</i>	52	26	0	0			78
Total	52	5,460	0	0	25,366	7	30,885
Sacramento							
<i>Facilities</i>	0	16,733	0	0	65,787	121	82,641
<i>Pipelines</i>	378	190	0	0			568
Total	378	16,923	0	0	65,787	121	83,210
San Francisco							
<i>Facilities</i>	0	12,160	0	0	1,493	15	13,668
<i>Pipelines</i>	32	16	0	0			48
Total	32	12,175	0	0	1,493	15	13,715
San Joaquin							
<i>Facilities</i>	1,101	9,269	1	0	71,407	25	81,803
<i>Pipelines</i>	195	98	0	0			294
Total	1,297	9,367	1	0	71,407	25	82,096
San Mateo							
<i>Facilities</i>	0	11,408	0	0	362	12	11,782
<i>Pipelines</i>	71	36	0	0			107
Total	71	11,444	0	0	362	12	11,889
Santa Clara							

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Facilities</i>	56	369	0	0	11,919	5	12,349
<i>Pipelines</i>	113	57	0	0			170
Total	169	426	0	0	11,919	5	12,518
Santa Cruz							
<i>Facilities</i>	0	123	0	0	0	0	123
<i>Pipelines</i>	20	10	0	0			30
Total	20	133	0	0	0	0	153
Sierra							
<i>Facilities</i>	0	0	0	0	4	0	4
<i>Pipelines</i>	8	4	0	0			12
Total	8	4	0	0	4	0	16
Solano							
<i>Facilities</i>	0	149,895	23	0	1,561,009	115	1,711,042
<i>Pipelines</i>	4,549	2,285	0	0			6,834
Total	4,549	152,180	23	0	1,561,009	115	1,717,876
Sonoma							
<i>Facilities</i>	0	22,234	0	0	265,964	29	288,228
<i>Pipelines</i>	279	140	0	0			420
Total	279	22,375	0	0	265,964	29	288,647
Stanislaus							
<i>Facilities</i>	0	492	0	0	8,769	3	9,264

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	58	29	0	0			87
Total	58	521	0	0	8,769	3	9,351
Sutter							
<i>Facilities</i>	0	1,647	0	0	56,980	10	58,637
<i>Pipelines</i>	71	36	0	0			107
Total	71	1,683	0	0	56,980	10	58,744
Tuolumne							
<i>Facilities</i>	0	0	0	0	662	0	662
<i>Pipelines</i>	3	1	0	0			4
Total	3	1	0	0	662	0	666
Yolo							
<i>Facilities</i>	0	25,439	0	0	31,596	71	57,105
<i>Pipelines</i>	486	244	0	0			731
Total	486	25,683	0	0	31,596	71	57,836
Yuba							
<i>Facilities</i>	0	3,295	0	0	15,532	0	18,827
<i>Pipelines</i>	25	12	0	0			37
Total	25	3,307	0	0	15,532	0	18,864
Total	17,463	471,144	77	75	3,721,184	613	4,210,555
Region Total	17,463	471,144	77	75	3,721,184	613	4,210,555

Potable Water

Waste Water

Oil Systems

Natural Gas

Electric Power

Communication

Total

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	3.00 - 12.10
	Building Contents	0.40 - 1.80
	Business Interruption	0.40 - 1.70
Infrastructure	Lifelines Damage	
Total		4.80 - 19.30

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	136,200	11,000	5,000	152,200
Minor	12,600	2,900	1,300	16,800
Major	630	320	150	1,100
Destroyed	40	40	10	90
Total	149,470	14,260	6,460	170,190

Estimated Casualties : Night Time

Severity Level	Description	# Persons
Level 1	Medical Aid	200 - 800
Level 2	Hospital Care	10 - 40
Level 3	Life-threatening	< 10
Level 4	Fatalities	< 10

Estimated Shelter Needs

Type	Households	People
Displaced Households	300 - 1,400	750 - 3,500
Public Shelter	150	380

Comments :

*Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Earthquake Information

Location :

Origin Time:

Magnitude : 6.77

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 12,897,419

Building Exposure : (\$ Millions)

Residential	1,672,121
Commercial	441,410
Other	382,752
Total	2,496,283

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	3.00 - 12.10
	Building Contents	0.40 - 1.80
	Business Interruption	0.40 - 1.70
Infrastructure	Lifelines Damage	
Total		4.80 - 19.30

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	136,200	11,000	5,000	152,200
Minor	12,600	2,900	1,300	16,800
Major	630	320	150	1,100
Destroyed	40	40	10	90
Total	149,470	14,260	6,460	170,190

Estimated Casualties : Day Time

Severity Level	Description	# Persons
Level 1	Medical Aid	300 - 1,200
Level 2	Hospital Care	30 - 110
Level 3	Life-threatening	< 10
Level 4	Fatalities	< 10

Estimated Shelter Needs

Type	Households	People
Displaced Households	300 - 1,400	750 - 3,500
Public Shelter	150	380

Comments :

*Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Earthquake Information

Location :

Origin Time:

Magnitude : 6.77

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 12,897,419

Building Exposure : (\$ Millions)

Residential	1,672,121
Commercial	441,410
Other	382,752
Total	2,496,283

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	3.00 - 12.10
	Building Contents	0.40 - 1.80
	Business Interruption	0.40 - 1.70
Infrastructure	Lifelines Damage	
Total		4.80 - 19.30

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	136,200	11,000	5,000	152,200
Minor	12,600	2,900	1,300	16,800
Major	630	320	150	1,100
Destroyed	40	40	10	90
Total	149,470	14,260	6,460	170,190

Estimated Casualties : Commute Time

Severity Level	Description	# Persons
Level 1	Medical Aid	200 - 800
Level 2	Hospital Care	30 - 110
Level 3	Life-threatening	20 - 70
Level 4	Fatalities	10 - 20

Estimated Shelter Needs

Type	Households	People
Displaced Households	300 - 1,400	750 - 3,500
Public Shelter	150	380

Comments :

*Hazus damage estimates are presented using FEMA Preliminary Damage Assessment (PDA) categories. These estimates should be used for planning purposes and may not reflect actual observed damages from the PDA process.

Disclaimer:

The estimates of social and economic impacts contained in this report were produced using HAZUS loss estimation methodology software which is based on current scientific and engineering knowledge. There are uncertainties inherent in any loss estimation technique. Therefore, there may be significant differences between the modeled results contained in this report and the actual social and economic losses following a specific earthquake. These results can be improved by using enhanced inventory, geotechnical, and observed ground motion data.

Earthquake Information

Location :

Origin Time:

Magnitude : 6.77

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 12,897,419

Building Exposure : (\$ Millions)

Residential	1,672,121
Commercial	441,410
Other	382,752
Total	2,496,283

Counties : See Appendix

Major Metro Area :

Shelter Summary Report

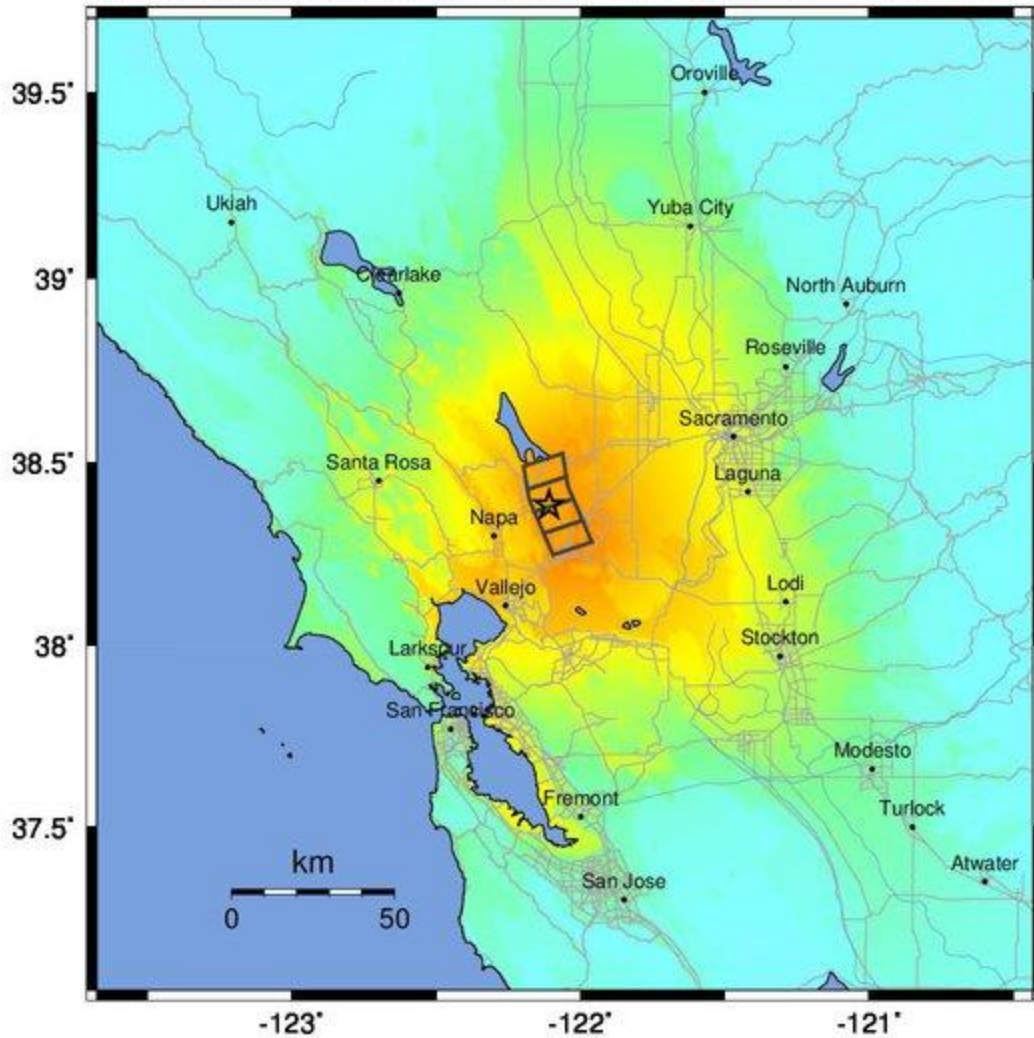
April 15, 2024

	# of Displaced Households	# of People Needing Short Term Shelter
California		
Alameda	24	13
Amador	0	0
Butte	0	0
Calaveras	0	0
Colusa	0	0
Contra Costa	29	18
El Dorado	0	0
Glenn	0	0
Lake	0	0
Marin	0	0
Mendocino	0	0
Merced	0	0
Napa	90	45
Nevada	0	0
Placer	0	0
Sacramento	4	2
San Francisco	11	4
San Joaquin	2	2
San Mateo	0	0
Santa Clara	0	0
Santa Cruz	0	0
Sierra	0	0
Solano	502	277
Sonoma	5	2
Stanislaus	0	0
Sutter	0	0
Tuolumne	0	0
Yolo	26	16
Yuba	0	0
Total	693	378

	# of Displaced Households	# of People Needing Short Term Shelter
Region Total	693	378

Totals only reflect data for those census tracts/blocks included in the user's study region and will reflect the entire county/state only if all of the census blocks for that county/states were selected at the time of study region creation.

-- Earthquake Planning Scenario --
 ShakeMap for Great Valley 04b Gordon Valley - Median ground motions Scenario
 Scenario Date: May 16, 2017 08:32:02 AM MDT M 6.8 N38.38 W122.11 Depth: 12.2km



-123° -122° -121°
 PLANNING SCENARIO ONLY -- Map Version 10 Processed 2017-05-16 06:01:47 PM MDT

PERCEIVED SHAKING	Not felt	Weak	Light	Moderate	Strong	Very strong	Severe	Violent	Extreme
POTENTIAL DAMAGE	none	none	none	Very light	Light	Moderate	Mod./Heavy	Heavy	Very Heavy
PEAK ACC.(%g)	<0.05	0.3	2.8	6.2	12	22	40	75	>139
PEAK VEL.(cm/s)	<0.02	0.1	1.4	4.7	9.6	20	41	86	>178
INSTRUMENTAL INTENSITY	I	II-III	IV	V	VI	VII	VIII	IX	X+

Scale based upon Worden et al. (2012)