
Hazus: Earthquake Global Risk Report

Region Name: HatCreekMcArthur

Earthquake Scenario: hatcreekmcarthurmayf_m7p29_se

Print Date: May 30, 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 16 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 37,805.12 square miles and contains 338 census tracts. There are over 512 thousand households in the region which has a total population of 1,350,947 people. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 568 thousand buildings in the region with a total building replacement value (excluding contents) of 292,060 (millions of dollars). Approximately 90.00 % of the buildings (and 66.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 42,751 and 67,351 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 568 thousand buildings in the region which have an aggregate total replacement value of 292,060 (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 83% 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 42 hospitals in the region with a total bed capacity of 3,008 beds. There are 764 schools, 420 fire stations, 98 police stations and 19 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 110,102.00 (millions of dollars). This inventory includes over 3,492.73 miles of highways, 3,660 bridges, 115,653.92 miles of pipes.

Table 1: Transportation System Lifeline Inventory

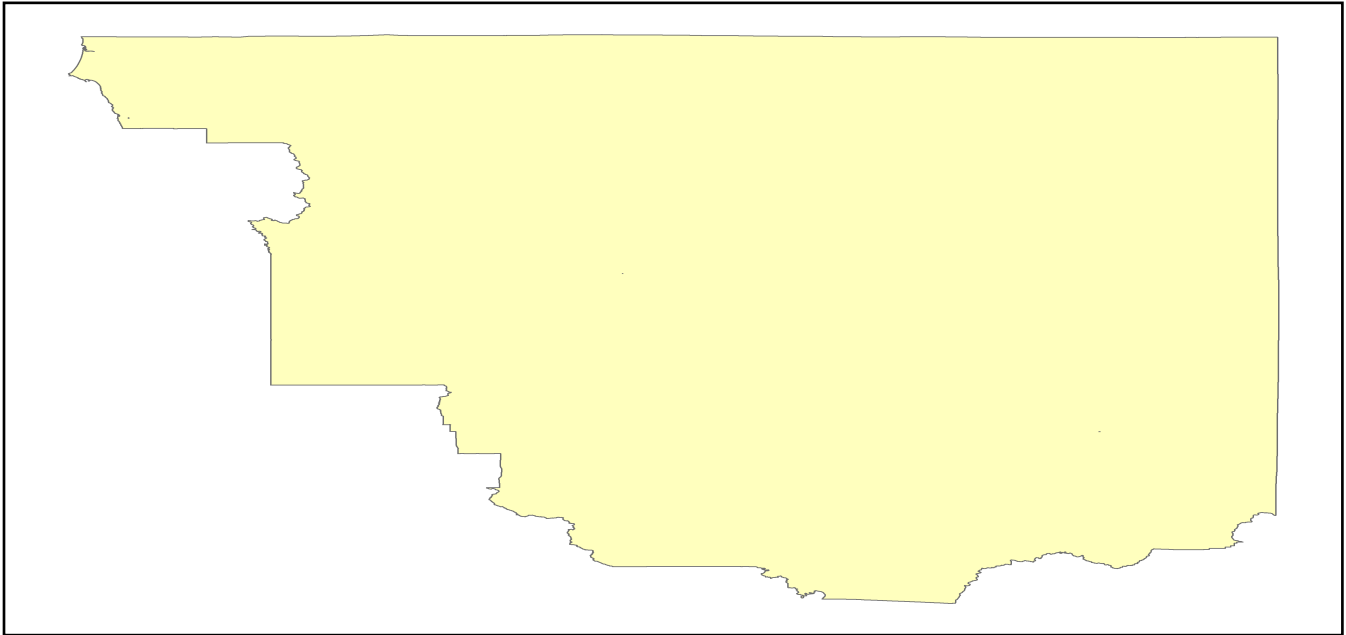
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	3,660	8493.8039
	Segments	985	23582.4790
	Tunnels	8	65.3866
	Subtotal		32141.6695
Railways	Bridges	719	4091.1100
	Facilities	8	21.3040
	Segments	704	5783.5687
	Tunnels	0	0.0000
	Subtotal		9895.9827
Light Rail	Bridges	0	0.0000
	Facilities	0	0.0000
	Segments	0	0.0000
	Tunnels	0	0.0000
	Subtotal		0.0000
Bus	Facilities	5	11.2809
	Subtotal		11.2809
Ferry	Facilities	0	0.0000
	Subtotal		0.0000
Port	Facilities	2	7.6236
	Subtotal		7.6236
Airport	Facilities	55	315.5040
	Runways	61	379.6656
	Subtotal		695.1696
		Total	42,751.70

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	2302.7712
	Facilities	4	157.1760
	Pipelines	0	0.0000
		Subtotal	2459.9472
Waste Water	Distribution Lines	NA	1381.6627
	Facilities	51	8769.5418
	Pipelines	0	0.0000
		Subtotal	10151.2045
Natural Gas	Distribution Lines	NA	921.1085
	Facilities	4	164.9741
	Pipelines	399	6713.2624
		Subtotal	7799.3450
Oil Systems	Facilities	1	0.1180
	Pipelines	0	0.0000
		Subtotal	0.1180
Electrical Power	Facilities	117	46930.2968
		Subtotal	46930.2968
Communication	Facilities	87	10.2660
		Subtotal	10.2660
	Total		67,351.20

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	hatcreekmcarthurmayf_m7p29_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	7.29
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 914 buildings will be at least moderately damaged. This is over 0.00 % of the buildings in the region. There are an estimated 5 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

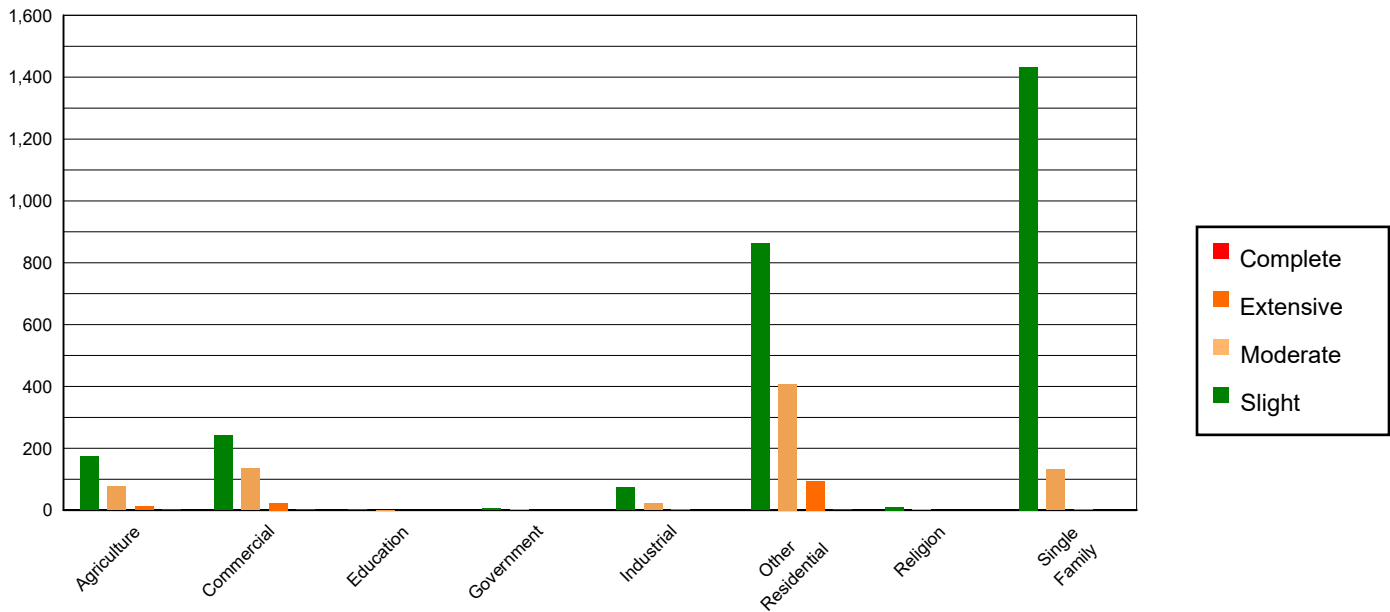


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	7808.53	1.38	173.71	6.20	77.78	10.01	12.44	9.40	1.54	29.55
Commercial	34937.17	6.19	241.71	8.62	134.22	17.28	23.08	17.44	1.82	34.97
Education	1117.12	0.20	2.97	0.11	0.86	0.11	0.04	0.03	0.00	0.00
Government	1880.94	0.33	5.76	0.21	2.05	0.26	0.25	0.19	0.00	0.06
Industrial	9352.12	1.66	73.52	2.62	20.94	2.70	1.41	1.06	0.01	0.28
Other Residential	95654.03	16.94	863.49	30.80	407.63	52.48	94.01	71.03	1.83	35.13
Religion	2038.56	0.36	9.78	0.35	2.51	0.32	0.14	0.11	0.00	0.01
Single Family	411746.55	72.94	1432.68	51.10	130.80	16.84	0.97	0.74	0.00	0.00
Total	564,535		2,804		777		132		5	

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

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	472057.02	83.62	1705.56	60.83	166.83	21.48	1.56	1.18	0.01	0.14
Steel	12649.69	2.24	143.49	5.12	101.32	13.04	21.46	16.22	1.76	33.75
Concrete	12649.06	2.24	89.13	3.18	39.22	5.05	6.33	4.78	0.42	8.04
Precast	8524.29	1.51	63.50	2.26	32.67	4.21	3.05	2.31	0.04	0.67
RM	16133.22	2.86	76.94	2.74	45.14	5.81	3.12	2.36	0.00	0.08
URM	1567.53	0.28	42.40	1.51	9.87	1.27	4.46	3.37	1.17	22.44
MH	40954.22	7.25	682.60	24.35	381.74	49.14	92.36	69.79	1.82	34.86
Total	564,535		2,804		777		132		5	

*Note:

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

Essential Facility Damage

Before the earthquake, the region had 3,008 hospital beds available for use. On the day of the earthquake, the model estimates that only 2,903 hospital beds (97.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 97.00% of the beds will be back in service. By 30 days, 98.00% 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	42	1	0	41
Schools	764	5	0	755
EOCs	19	0	0	19
PoliceStations	98	0	0	98
FireStations	420	4	0	414

Transportation Lifeline Damage

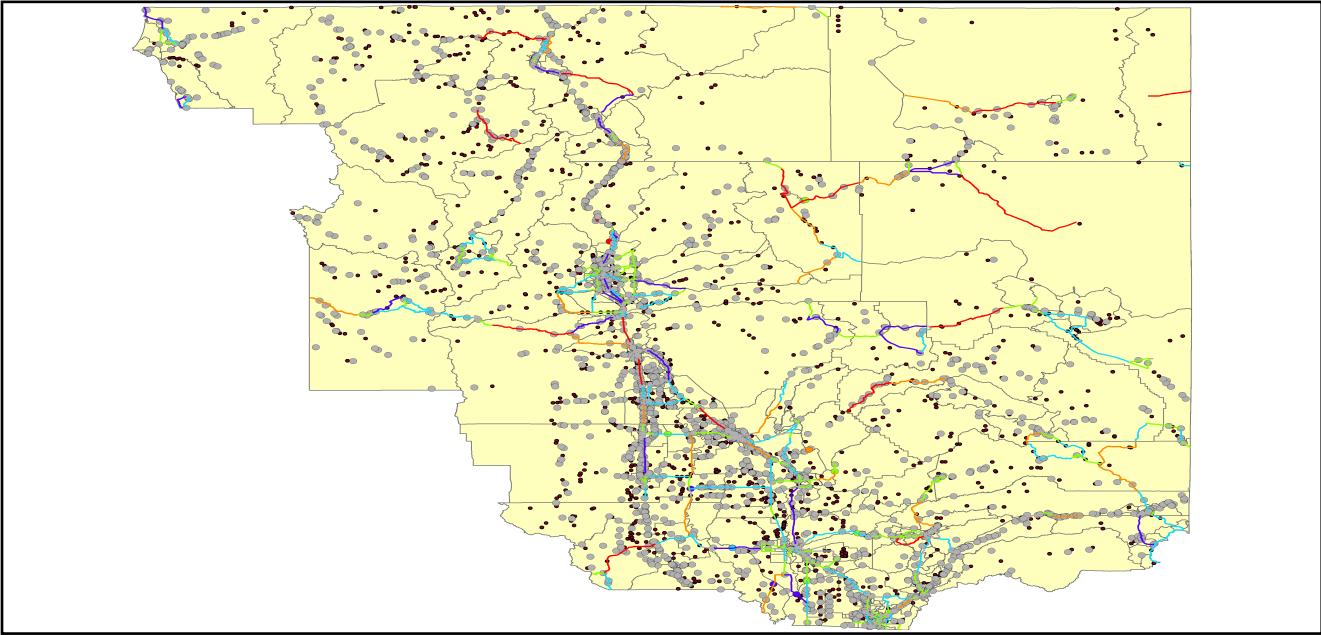


Table 6: Expected Damage to the Transportation Systems

System	Component	Number of Locations_				
		Locations/ Segments	With at Least Mod. Damage	With Complete Damage	With Functionality > 50 %	
					After Day 1	After Day 7
Highway	Segments	985	0	0	985	985
	Bridges	3,660	0	0	3,660	3,660
	Tunnels	8	0	0	8	8
Railways	Segments	704	0	0	704	704
	Bridges	719	0	0	719	719
	Tunnels	0	0	0	0	0
	Facilities	8	0	0	8	8
Light Rail	Segments	0	0	0	0	0
	Bridges	0	0	0	0	0
	Tunnels	0	0	0	0	0
	Facilities	0	0	0	0	0
Bus	Facilities	5	0	0	5	5
Ferry	Facilities	0	0	0	0	0
Port	Facilities	2	0	0	2	2
Airport	Facilities	55	1	0	55	55
	Runways	61	0	0	61	61

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	4	0	0	4	4
Waste Water	51	0	0	51	51
Natural Gas	4	0	0	4	4
Oil Systems	1	0	0	1	1
Electrical Power	117	6	0	113	115
Communication	87	0	0	87	87

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

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	71,544	1095	274
Waste Water	42,926	550	138
Natural Gas	1,184	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	512,971	132	14	0	0	0
Electric Power		962	609	241	18	1

Induced Earthquake Damage

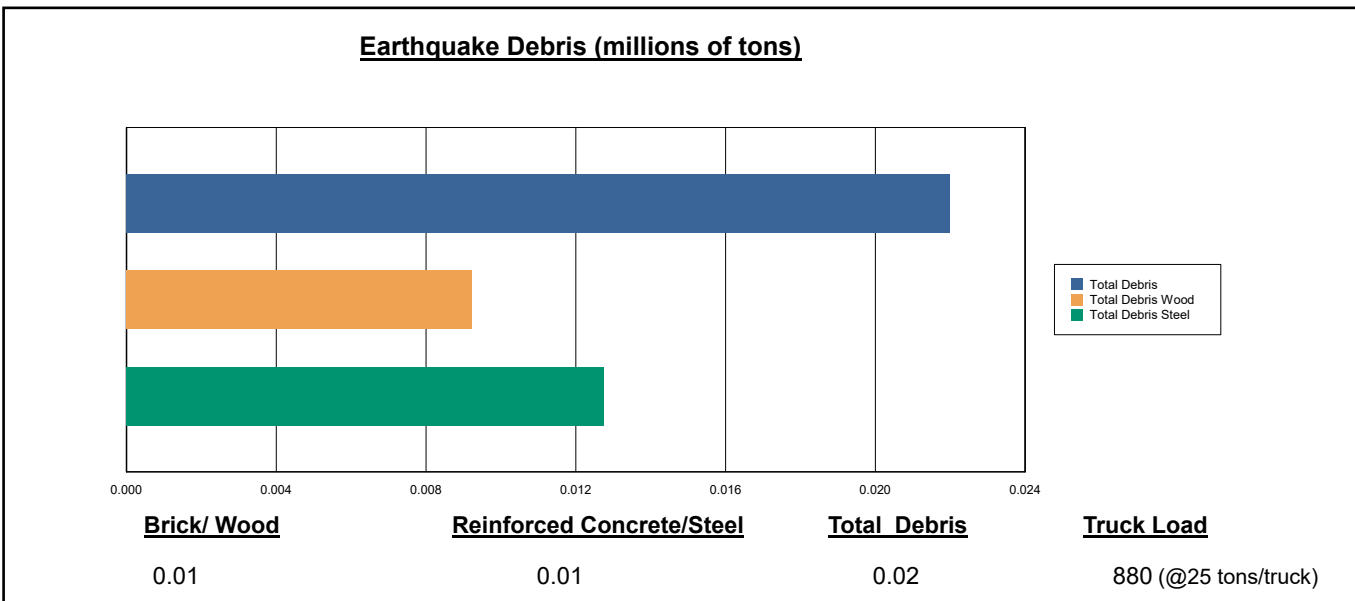
Fire Following Earthquake

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 0 ignitions that will burn about 0.00 sq. mi 0.00 % of the region's total area.) The model also estimates that the fires will displace about 0 people and burn about 0 (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.

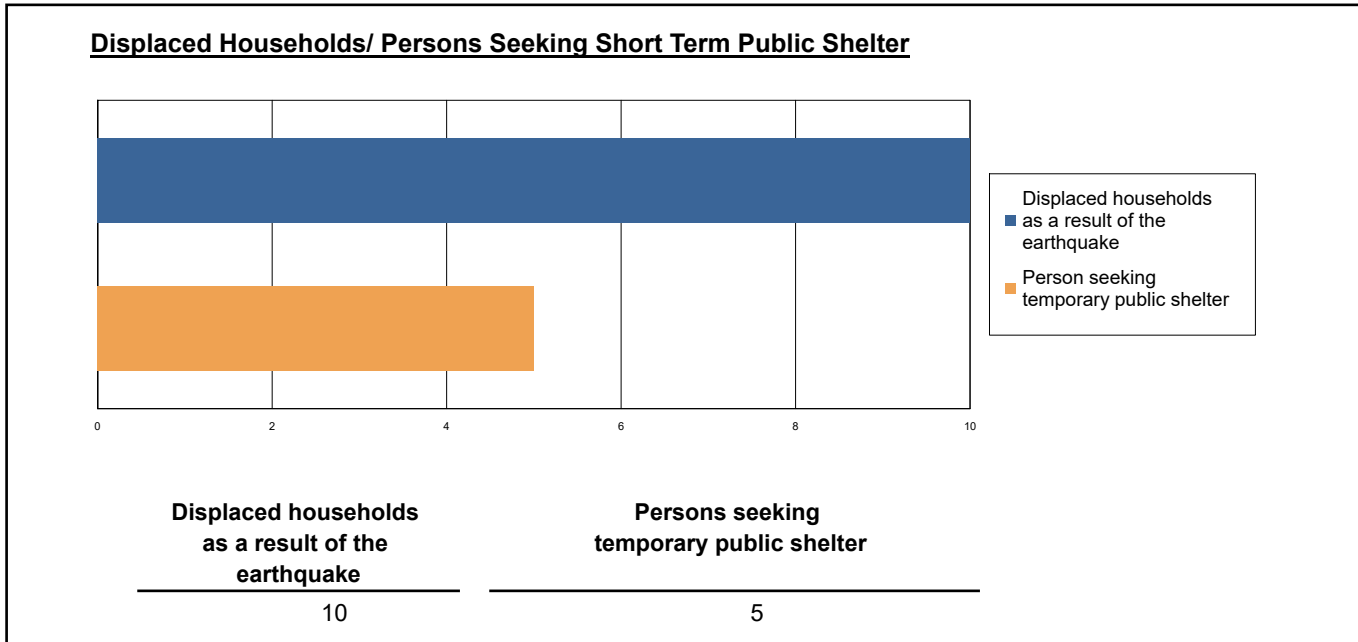
The model estimates that a total of 22,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 42.00% of the total, with the remainder being Reinforced Concrete/Steel. If the debris tonnage is converted to an estimated number of truckloads, it will require 880 truckloads (@25 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 10 households to be displaced due to the earthquake. Of these, 5 people (out of a total population of 1,350,947) 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	0.12	0.02	0.00	0.00
	Commuting	0.00	0.00	0.00	0.00
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	0.06	0.01	0.00	0.00
	Other-Residential	4.53	0.43	0.01	0.01
	Single Family	1.83	0.07	0.00	0.00
	Total	7	1	0	0
	2 PM	Commercial	7.63	1.03	0.08
Commuting		0.01	0.01	0.02	0.00
Educational		0.76	0.08	0.00	0.00
Hotels		0.00	0.00	0.00	0.00
Industrial		0.45	0.04	0.00	0.00
Other-Residential		1.50	0.14	0.00	0.00
Single Family		0.63	0.02	0.00	0.00
Total		11	1	0	0
5 PM		Commercial	4.70	0.63	0.05
	Commuting	0.12	0.17	0.27	0.05
	Educational	0.01	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	0.28	0.02	0.00	0.00
	Other-Residential	1.61	0.15	0.00	0.00
	Single Family	0.67	0.03	0.00	0.00
	Total	7	1	0	0

Economic Loss

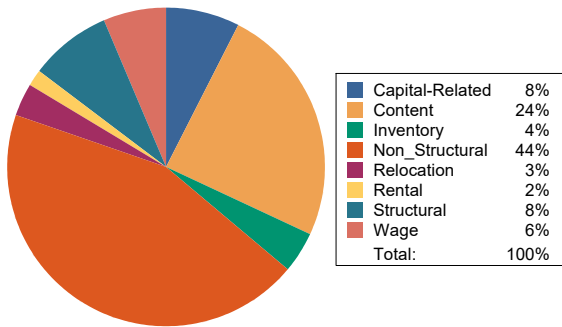
The total economic loss estimated for the earthquake is 1,406.59 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

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 245.78 (millions of dollars); 19 % 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 26 % 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)

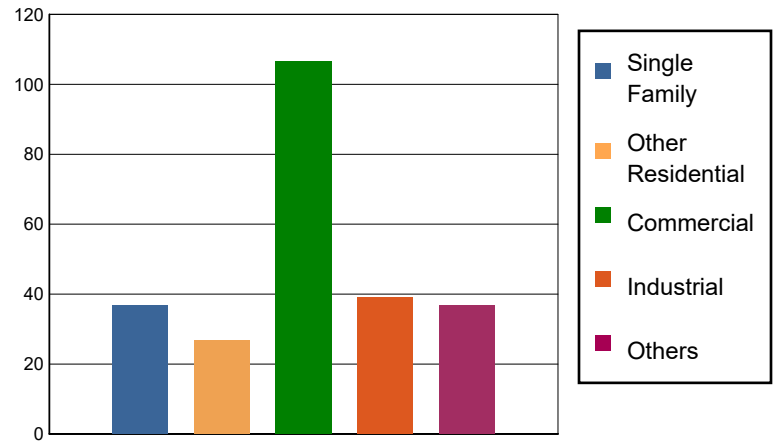


Table 11: Building-Related Economic Loss Estimates
(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	0.3046	14.8736	0.2221	0.2066	15.6069
	Capital-Related	0.0000	0.1295	18.1863	0.1363	0.0944	18.5465
	Rental	0.3003	0.6505	3.2812	0.2365	0.0788	4.5473
	Relocation	0.8897	1.5476	3.6947	0.5912	1.0707	7.7939
	Subtotal	1.1900	2.6322	40.0358	1.1861	1.4505	46.4946
Capital Stock Losses							
	Structural	2.7680	2.8867	5.7242	2.0693	6.8540	20.3022
	Non_Structural	22.5322	16.7973	38.1389	18.7936	12.4799	108.7419
	Content	10.2395	4.3841	20.8745	14.7779	9.5548	59.8308
	Inventory	0.0000	0.0000	1.7062	2.1592	6.5422	10.4076
	Subtotal	35.5397	24.0681	66.4438	37.8000	35.4309	199.2825
	Total	36.73	26.70	106.48	38.99	36.88	245.78

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	23582.4790	0.0000	0.00
	Bridges	8493.8039	3.3386	0.04
	Tunnels	65.3866	0.0000	0.00
	Subtotal	32141.6695	3.3386	
Railways	Segments	5783.5687	0.0000	0.00
	Bridges	4091.1100	0.0532	0.00
	Tunnels	0.0000	0.0000	0.00
	Facilities	21.3040	0.0912	0.43
	Subtotal	9895.9827	0.1444	
Light Rail	Segments	0.0000	0.0000	0.00
	Bridges	0.0000	0.0000	0.00
	Tunnels	0.0000	0.0000	0.00
	Facilities	0.0000	0.0000	0.00
	Subtotal	0.0000	0.0000	
Bus	Facilities	11.2809	0.1395	1.24
	Subtotal	11.2809	0.1395	
Ferry	Facilities	0.0000	0.0000	0.00
	Subtotal	0.0000	0.0000	
Port	Facilities	7.6236	0.0367	0.48
	Subtotal	7.6236	0.0367	
Airport	Facilities	315.5040	6.5711	2.08
	Runways	379.6656	0.0000	0.00
	Subtotal	695.1696	6.5711	
Total		42,751.73	10.23	

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	157.1760	0.1124	0.07
	Distribution Lines	2302.7712	4.9291	0.21
	Subtotal	2459.9472	5.0415	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	8769.5418	19.2105	0.22
	Distribution Lines	1381.6627	2.4760	0.18
	Subtotal	10151.2045	21.6865	
Natural Gas	Pipelines	6713.2624	0.0000	0.00
	Facilities	164.9741	4.4058	2.67
	Distribution Lines	921.1085	0.8483	0.09
	Subtotal	7799.3450	5.2541	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	0.1180	0.0001	0.08
	Subtotal	0.1180	0.0001	
Electrical Power	Facilities	46930.2968	1118.5215	2.38
	Subtotal	46930.2968	1118.5215	
Communication	Facilities	10.2660	0.0735	0.72
	Subtotal	10.2660	0.0735	
	Total	67,351.18	1,150.58	

Appendix A: County Listing for the Region

- Butte,CA
- Colusa,CA
- Del Norte,CA
- Glenn,CA
- Lassen,CA
- Modoc,CA
- Nevada,CA
- Placer,CA
- Plumas,CA
- Shasta,CA
- Sierra,CA
- Siskiyou,CA
- Sutter,CA
- Tehama,CA
- Trinity,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	Butte	211,632	25,875	16,639	42,514
	Colusa	21,839	2,244	2,024	4,268
	Del Norte	27,743	5,004	1,876	6,881
	Glenn	28,917	2,791	3,717	6,508
	Lassen	32,730	4,033	2,008	6,042
	Modoc	8,700	1,435	1,468	2,904
	Nevada	102,241	17,908	6,108	24,016
	Placer	404,739	69,985	24,193	94,179
	Plumas	19,790	6,128	2,276	8,405
	Shasta	182,155	21,572	15,715	37,288
	Sierra	3,236	596	419	1,015
	Siskiyou	44,076	6,856	4,758	11,615
	Sutter	99,633	10,618	6,448	17,066
	Tehama	65,829	7,705	5,113	12,818
	Trinity	16,112	2,209	1,485	3,694
Yuba	81,575	8,161	4,677	12,839	
Total Region		1,350,947	193,120	98,924	292,052

Building Inspection Tagging (Counts)

Total Economic Loss
Total:

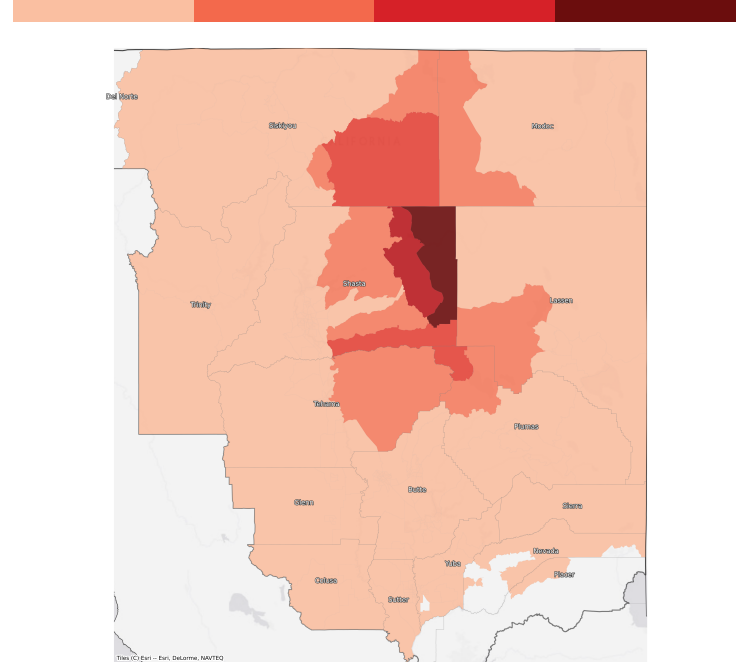
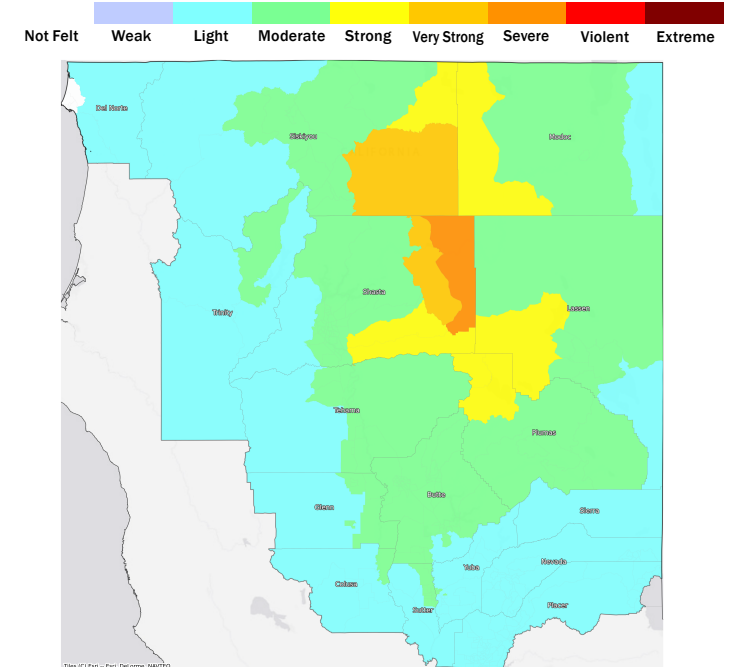
Top Counties	State	Total

Injuries & Fatalities
**Total Day:
Total Night:**

Top Counties	State	Injuries (day/night)	Fatalities (day/night)

Displaced Households & Short-Term Shelter Needs
**Total Displaced:
Total Needing Shelter:**

Top Counties	State	Displaced	Needing Shelter

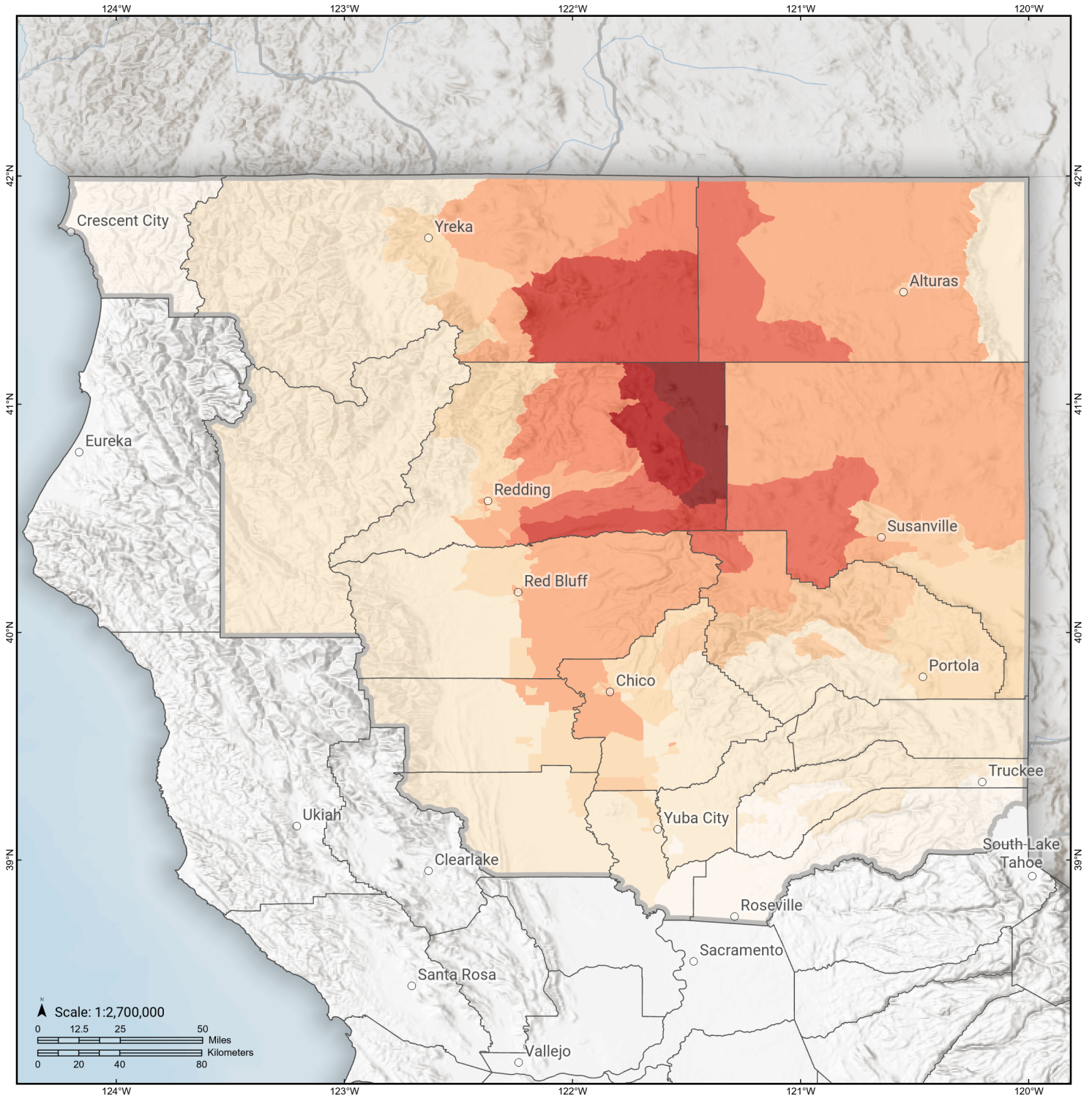
Economic Impacts by Census Tract

Ground Shaking

Debris
**Total Tons:
Total Truckloads:**

Type	Tons

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.

Hat Creek-McArthur-Mayfield

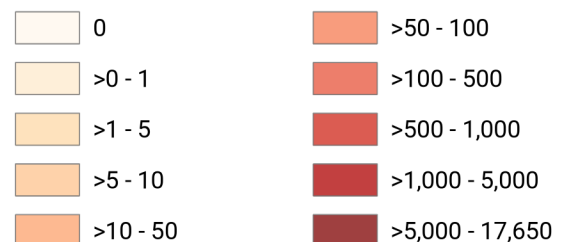
Debris Generated by Census Tract



Study Region: Hat Creek-McArthur-Mayfield
Scenario: hatcreekmcarthurmayf_m7p29_se

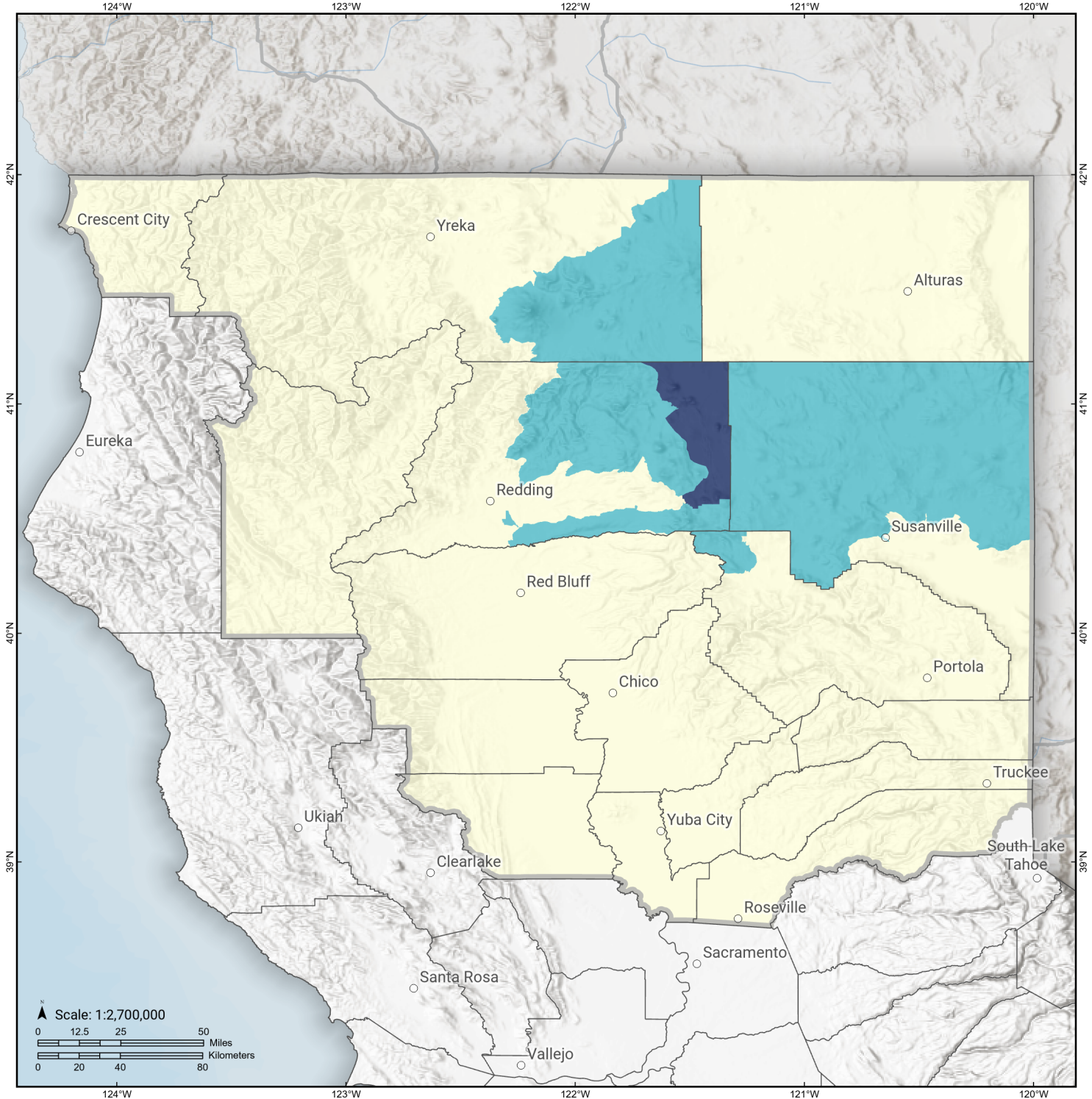


Debris Generated (in tons)

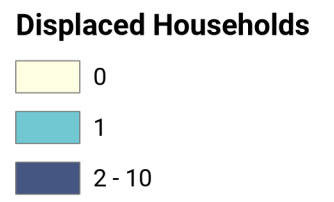


Hat Creek-McArthur-Mayfield

Displaced Households by Census Tract

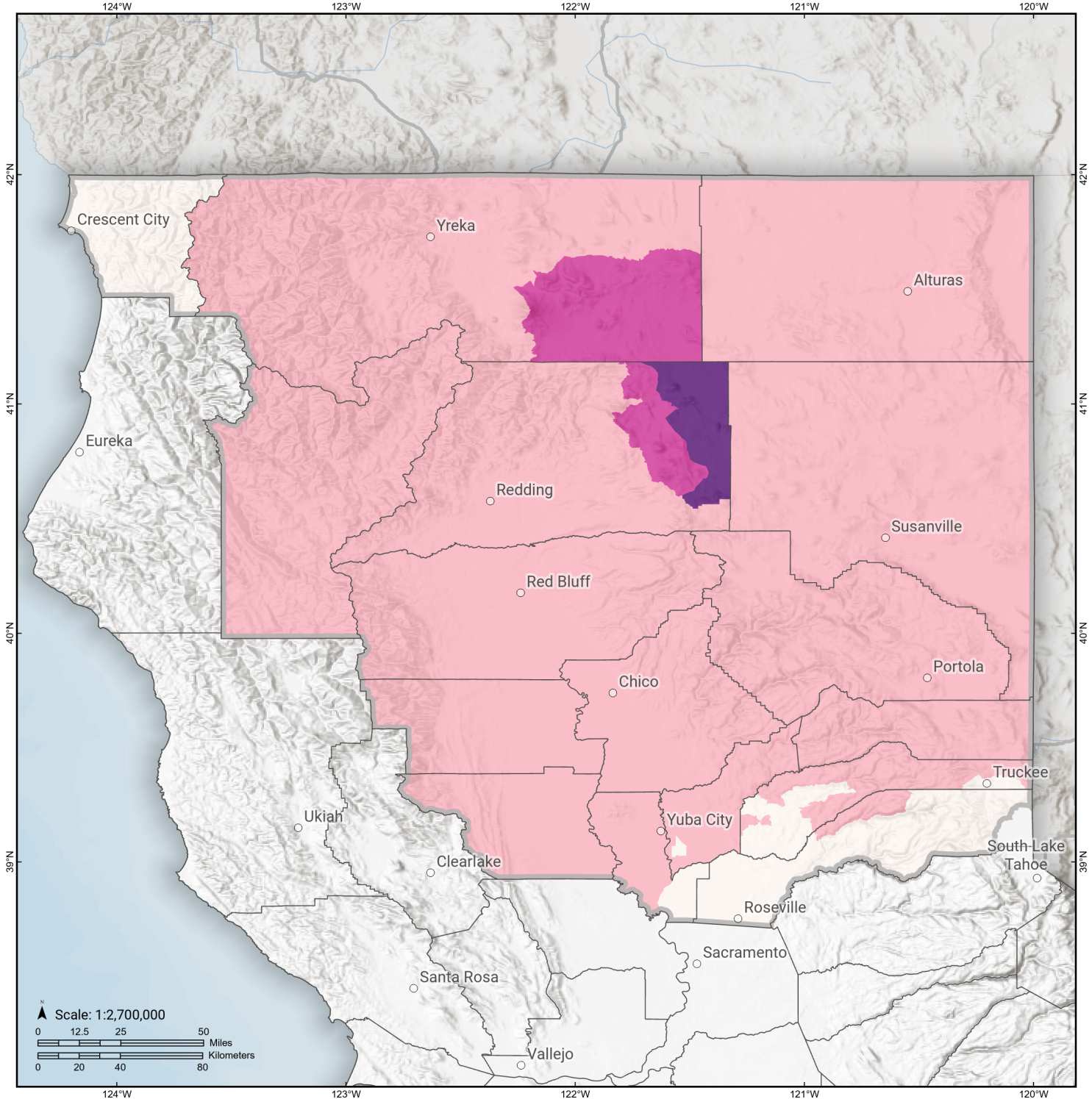


Study Region: Hat Creek-McArthur-Mayfield
Scenario: hatcreekmcarthurmeyf_m7p29_se



Hat Creek-McArthur-Mayfield

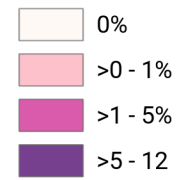
Loss Ratio by Census Tract



Study Region: Hat Creek-McArthur-Mayfield
Scenario: hatcreekmcarthurmayf_m7p29_se

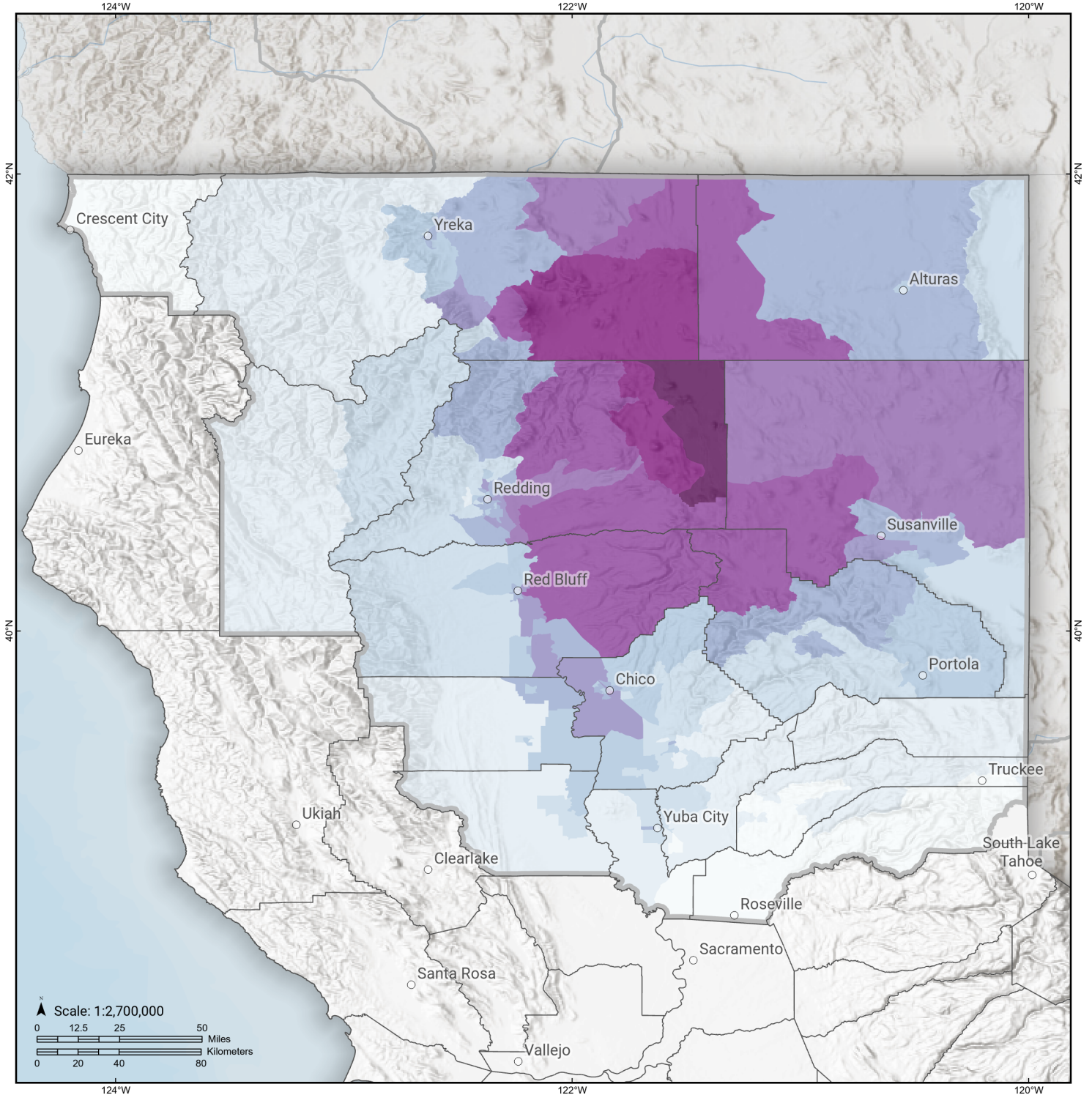


Loss Ratio (ratio of building related economic loss to exposed value of buildings)



Hat Creek-McArthur-Mayfield

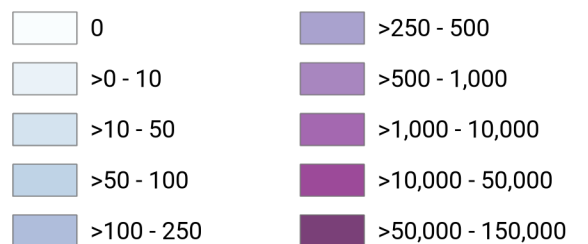
Total Building Related Economic Loss by Census Tract



Study Region: Hat Creek-McArthur-Mayfield
Scenario: hatcreekmcarthurm7p29_se



Economic Loss (in thousands of USD \$)



Building Damage by Count by General Occupancy

May 30, 2024

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
California						
Butte						
<i>Agriculture</i>	508	1	0	0	0	510
<i>Commercial</i>	6,369	15	1	0	0	6,385
<i>Education</i>	172	0	0	0	0	172
<i>Government</i>	147	0	0	0	0	147
<i>Industrial</i>	1,518	4	0	0	0	1,522
<i>Religion</i>	529	2	0	0	0	531
<i>Other Residential</i>	21,449	47	2	0	0	21,498
<i>Single Family</i>	50,267	16	0	0	0	50,283
Colusa						
<i>Agriculture</i>	142	0	0	0	0	142
<i>Commercial</i>	794	0	0	0	0	794
<i>Education</i>	33	0	0	0	0	33
<i>Government</i>	32	0	0	0	0	32
<i>Industrial</i>	113	0	0	0	0	113
<i>Religion</i>	58	0	0	0	0	58
<i>Other Residential</i>	954	0	0	0	0	954
<i>Single Family</i>	5,954	0	0	0	0	5,954
Del Norte						

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Glenn	<i>Agriculture</i>	134	0	0	0	0	134
	<i>Commercial</i>	729	0	0	0	0	729
	<i>Education</i>	31	0	0	0	0	31
	<i>Government</i>	18	0	0	0	0	18
	<i>Industrial</i>	61	0	0	0	0	61
	<i>Religion</i>	53	0	0	0	0	53
	<i>Other Residential</i>	3,861	0	0	0	0	3,861
	<i>Single Family</i>	6,117	0	0	0	0	6,117
Lassen	<i>Agriculture</i>	1,362	3	0	0	0	1,365
	<i>Commercial</i>	884	1	0	0	0	885
	<i>Education</i>	35	0	0	0	0	35
	<i>Government</i>	99	0	0	0	0	99
	<i>Industrial</i>	254	0	0	0	0	254
	<i>Religion</i>	89	0	0	0	0	89
	<i>Other Residential</i>	2,145	6	0	0	0	2,152
	<i>Single Family</i>	7,416	1	0	0	0	7,417

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Modoc	<i>Single Family</i>	9,493	68	0	0	0	9,562
	<i>Agriculture</i>	439	9	1	0	0	449
	<i>Commercial</i>	529	3	0	0	0	532
	<i>Education</i>	20	0	0	0	0	20
	<i>Government</i>	16	0	0	0	0	16
	<i>Industrial</i>	74	2	0	0	0	76
	<i>Religion</i>	36	0	0	0	0	36
	<i>Other Residential</i>	1,945	44	5	0	0	1,994
Nevada	<i>Single Family</i>	3,720	20	0	0	0	3,740
	<i>Agriculture</i>	132	0	0	0	0	132
	<i>Commercial</i>	2,835	0	0	0	0	2,835
	<i>Education</i>	108	0	0	0	0	108
	<i>Government</i>	60	0	0	0	0	60
	<i>Industrial</i>	1,161	0	0	0	0	1,161
	<i>Religion</i>	189	0	0	0	0	189
	<i>Other Residential</i>	6,384	0	0	0	0	6,384
Placer	<i>Single Family</i>	43,280	0	0	0	0	43,280
	<i>Agriculture</i>	258	0	0	0	0	258
	<i>Commercial</i>	8,538	0	0	0	0	8,538
	<i>Education</i>	231	0	0	0	0	231
	<i>Government</i>	377	0	0	0	0	377
	<i>Industrial</i>	2,703	0	0	0	0	2,703

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Religion</i>	382	0	0	0	0	382
<i>Other Residential</i>	14,843	0	0	0	0	14,843
<i>Single Family</i>	134,719	0	0	0	0	134,719
Plumas						
<i>Agriculture</i>	83	1	0	0	0	84
<i>Commercial</i>	1,196	16	2	0	0	1,215
<i>Education</i>	26	0	0	0	0	26
<i>Government</i>	45	0	0	0	0	45
<i>Industrial</i>	182	2	1	0	0	184
<i>Religion</i>	29	1	0	0	0	30
<i>Other Residential</i>	4,979	49	4	0	0	5,032
<i>Single Family</i>	9,816	61	0	0	0	9,877
Shasta						
<i>Agriculture</i>	2,987	158	76	12	2	3,235
<i>Commercial</i>	4,926	176	127	23	2	5,254
<i>Education</i>	133	2	1	0	0	136
<i>Government</i>	82	3	2	0	0	87
<i>Industrial</i>	966	53	18	1	0	1,038
<i>Religion</i>	60	4	2	0	0	66
<i>Other Residential</i>	15,899	574	381	94	2	16,949
<i>Single Family</i>	50,622	1,068	124	1	0	51,815
Sierra						
<i>Agriculture</i>	7	0	0	0	0	7
<i>Commercial</i>	141	0	0	0	0	141
<i>Education</i>	14	0	0	0	0	14

	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Government</i>	16	0	0	0	0	16
<i>Industrial</i>	66	0	0	0	0	66
<i>Religion</i>	12	0	0	0	0	12
<i>Other Residential</i>	153	0	0	0	0	153
<i>Single Family</i>	1,858	0	0	0	0	1,858
Siskiyou						
<i>Agriculture</i>	200	1	0	0	0	201
<i>Commercial</i>	1,578	11	1	0	0	1,591
<i>Education</i>	76	0	0	0	0	76
<i>Government</i>	242	2	0	0	0	244
<i>Industrial</i>	469	9	2	0	0	480
<i>Religion</i>	125	2	0	0	0	127
<i>Other Residential</i>	5,015	69	10	0	0	5,095
<i>Single Family</i>	17,612	177	5	0	0	17,794
Sutter						
<i>Agriculture</i>	1,124	1	0	0	0	1,125
<i>Commercial</i>	2,052	0	0	0	0	2,052
<i>Education</i>	62	0	0	0	0	62
<i>Government</i>	77	0	0	0	0	77
<i>Industrial</i>	636	0	0	0	0	636
<i>Religion</i>	154	0	0	0	0	154
<i>Other Residential</i>	3,112	1	0	0	0	3,113
<i>Single Family</i>	24,512	0	0	0	0	24,512
Tehama						
<i>Agriculture</i>	299	0	0	0	0	299

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
Trinity	<i>Commercial</i>	1,266	4	0	0	0	1,270
	<i>Education</i>	57	0	0	0	0	57
	<i>Government</i>	50	0	0	0	0	50
	<i>Industrial</i>	550	2	0	0	0	552
	<i>Religion</i>	110	0	0	0	0	110
	<i>Other Residential</i>	3,956	33	2	0	0	3,991
	<i>Single Family</i>	21,199	22	1	0	0	21,222
	<i>Agriculture</i>	4	0	0	0	0	4
	<i>Commercial</i>	1,005	0	0	0	0	1,005
	<i>Education</i>	26	0	0	0	0	26
Yuba	<i>Government</i>	8	0	0	0	0	8
	<i>Industrial</i>	58	0	0	0	0	58
	<i>Religion</i>	45	0	0	0	0	45
	<i>Other Residential</i>	1,354	0	0	0	0	1,354
	<i>Single Family</i>	6,294	0	0	0	0	6,294
	<i>Agriculture</i>	92	0	0	0	0	92
	<i>Commercial</i>	1,199	0	0	0	0	1,199
	<i>Education</i>	54	0	0	0	0	54
	<i>Government</i>	591	0	0	0	0	591
	<i>Industrial</i>	404	0	0	0	0	404
<i>Religion</i>	98	0	0	0	0	98	
<i>Other Residential</i>	7,021	0	0	0	0	7,021	

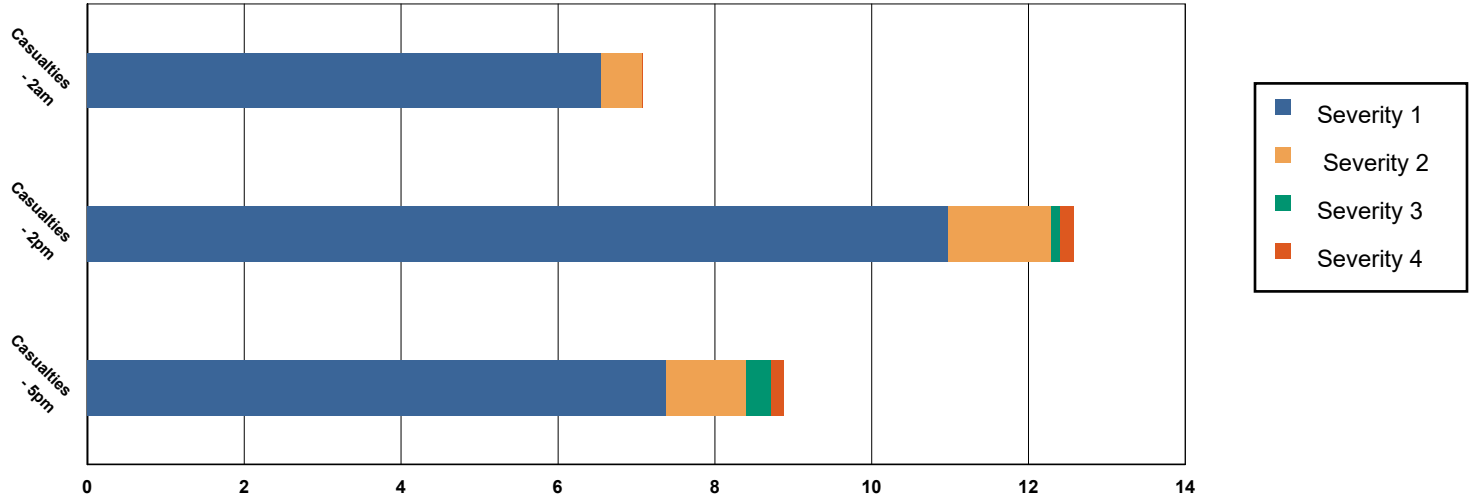
	# of Buildings					Total
	None	Slight	Moderate	Extensive	Complete	
<i>Single Family</i>	18,867	0	0	0	0	18,867
Total	564,535	2,804	777	132	5	568,253
Region Total	564,535	2,804	777	132	5	568,253

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

June 03, 2024

Region Total Casualties



Injury Severity Level

Severity 1	Severity 2	Severity 3	Severity 4	Total
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California

Butte

Casualties - 2am

	Severity 1	Severity 2	Severity 3	Severity 4	Total
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0

Total Casualties - 2am

0	0	0	0	0
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Casualties - 2pm

	Severity 1	Severity 2	Severity 3	Severity 4	Total
Commuting	0	0	0	0	0
Commercial	0	0	0	0	0
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Butte					
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0
Colusa					
Casualties - 2am					
<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>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
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<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>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
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0
Del Norte					
Casualties - 2am					
<i>Commuting</i>	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Del Norte					
Casualties - 2am					
<i>Commercial</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
<i>Single Family</i>	0	0	0	0	0
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<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>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
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0
Glenn					
Casualties - 2am					
<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>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
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<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>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0

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

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Nevada					
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
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0
Placer					
Casualties - 2am					
<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>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
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<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>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
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Placer					
Total Casualties - 5pm	0	0	0	0	0
Plumas					
Casualties - 2am					
<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>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
Total Casualties - 2am	0	0	0	0	0
Casualties - 2pm					
<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>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
Total Casualties - 2pm	0	0	0	0	0
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>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
Total Casualties - 5pm	0	0	0	0	0
Shasta					
Casualties - 2am					
<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>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0
<i>Other-Residential</i>	4	0	0	0	4
<i>Single Family</i>	2	0	0	0	2
Total Casualties - 2am	6	1	0	0	6
Casualties - 2pm					
<i>Commuting</i>	0	0	0	0	0

Injury Severity Level

Severity 1 Severity 2 Severity 3 Severity 4 Total

California

Shasta

Casualties - 2pm

<i>Commercial</i>	7	1	0	0	8
<i>Educational</i>	1	0	0	0	1
<i>Hotels</i>	0	0	0	0	0
<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
Total Casualties - 2pm	10	1	0	0	12

Casualties - 5pm

<i>Commuting</i>	0	0	0	0	1
<i>Commercial</i>	4	1	0	0	5
<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>	1	0	0	0	2
<i>Single Family</i>	1	0	0	0	1
Total Casualties - 5pm	7	1	0	0	8

Sierra

Casualties - 2am

<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>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
Total Casualties - 2am	0	0	0	0	0

Casualties - 2pm

<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>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
Total Casualties - 2pm	0	0	0	0	0

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>Hotels</i>	0	0	0	0	0
<i>Industrial</i>	0	0	0	0	0

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

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

	Injury Severity Level				Total
	Severity 1	Severity 2	Severity 3	Severity 4	
California					
Yuba					
Casualties - 2am					
<i>Other-Residential</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>Commuting</i>	0	0	0	0	0
<i>Commercial</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
<i>Single Family</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>Commercial</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
<i>Single Family</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

May 30, 2024

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Butte	0	0	0
Colusa	0	0	0
Del Norte	0	0	0
Glenn	0	0	0
Lassen	0	0	0
Modoc	0	0	0
Nevada	0	0	0
Placer	0	0	0
Plumas	0	0	0
Shasta	8	12	20
Sierra	0	0	0
Siskiyou	0	0	1
Sutter	0	0	0
Tehama	0	0	0
Trinity	0	0	0
Yuba	0	0	0
Total	10	13	23
Region Total	10	13	23

Brick, Wood & Others

Concrete & Steel

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.

Direct Economic Losses For Buildings

June 3, 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	3	54	38	6	0.00	0	1	1	1	104
Shasta	18,179	81,692	43,986	8,687	0.27	7,310	18,131	15,233	4,035	197,254
Siskiyou	735	8,902	5,333	438	0.08	193	70	78	128	15,876
Trinity	0	17	13	2	0.00	0	0	0	0	33
Tehama	131	2,010	1,159	171	0.02	18	12	14	20	3,536
Plumas	436	5,547	2,935	93	0.07	121	111	89	177	9,508
Butte	259	3,660	2,220	270	0.01	43	62	67	68	6,650
Del Norte	0	0	0	0	0.00	0	0	0	0	0
Nevada	0	1	0	0	0.00	0	0	0	0	1

	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	
Yuba	1	46	32	6	0.00	0	0	0	0	84
Glenn	39	334	222	75	0.01	4	2	2	3	683
Lassen	275	4,053	2,278	142	0.07	68	139	109	93	7,156
Sutter	10	364	236	44	0.00	1	1	1	2	659
Placer	0	0	0	0	0.00	0	0	0	0	0
Modoc	234	2,061	1,376	473	0.08	37	18	13	20	4,231
Sierra	0	3	2	0	0.00	0	0	0	0	5
Total	20,302	108,742	59,831	10,408	0.04	7,794	18,547	15,607	4,548	245,779
Region Total	20,302	108,742	59,831	10,408	0.04	7,794	18,547	15,607	4,548	245,779

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

June 03, 2024

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Butte								
Segments	0	0	0					0
Bridges	8	0	0					8
Tunnels	0	0	0					0
Facilities		26	0	0	0	0	231	256
Total	8	26	0	0	0	0	231	264
Colusa								
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
Del Norte								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	6	6

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	0	0	0	6	6
Glenn								
Segments	0	0	0					0
Bridges	2	0	0					2
Tunnels	0	0	0					0
Facilities		0	0	0	37	0	102	139
Total	2	0	0	0	37	0	102	141
Lassen								
Segments	0	0	0					0
Bridges	28	18	0					46
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	988	988
Total	28	18	0	0	0	0	988	1,034
Modoc								
Segments	0	0	0					0
Bridges	4	21	0					25
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	639	639
Total	4	21	0	0	0	0	639	664
Nevada								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		3	0	0	0	0	11	14

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	3	0	0	0	0	11	14
Placer								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		11	0	2	0	0	23	36
Total	0	11	0	2	0	0	23	37
Plumas								
Segments	0	0	0					0
Bridges	26	2	0					28
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	1,221	1,221
Total	26	2	0	0	0	0	1,221	1,250
Shasta								
Segments	0	0	0					0
Bridges	3,211	4	0					3,216
Tunnels	0	0	0					0
Facilities		26	0	22	0	0	2,197	2,245
Total	3,211	30	0	22	0	0	2,197	5,460
Sierra								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	51	51

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	0	0	0	51	51
Siskiyou								
Segments	0	0	0					0
Bridges	4	7	0					11
Tunnels	0	0	0					0
Facilities		26	0	94	0	0	645	764
Total	4	33	0	94	0	0	645	775
Sutter								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	129	129
Total	0	0	0	0	0	0	129	129
Tehama								
Segments	0	0	0					0
Bridges	54	0	0					54
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	102	102
Total	54	0	0	0	0	0	102	156
Trinity								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	164	164

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	0	0	0	164	165
Yuba								
<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	22	0	0	11	33
Total	0	0	0	22	0	0	11	33
Total	3,339	144	0	140	37	0	6,571	10,230
Region Total	3,339	144	0	140	37	0	6,571	10,230

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

June 03, 2024

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Butte							
Facilities	28	492	0	0	47,559	3	48,082
Pipelines	81	41	0	0			121
Total	109	532	0	0	47,559	3	48,203
Colusa							
Facilities	0	248	0	3	339	0	590
Pipelines	23	12	0	0			35
Total	23	260	0	3	339	0	625
Del Norte							
Facilities	0	0	0	0	0	0	0
Pipelines	7	3	0	0			10
Total	7	3	0	0	0	0	10
Glenn							
Facilities	0	123	0	0	2	0	125

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
<i>Pipelines</i>	34	17	0	0			51
Total	34	140	0	0	2	0	177
Lassen							
<i>Facilities</i>	0	1,524	0	0	81,108	3	82,635
<i>Pipelines</i>	450	226	0	0			676
Total	450	1,750	0	0	81,108	3	83,311
Modoc							
<i>Facilities</i>	0	123	0	658	0	0	781
<i>Pipelines</i>	291	146	0	0			437
Total	291	269	0	658	0	0	1,218
Nevada							
<i>Facilities</i>	0	18	0	0	44	0	62
<i>Pipelines</i>	22	11	0	0			33
Total	22	29	0	0	44	0	96
Placer							
<i>Facilities</i>	0	26	0	0	511	0	536
<i>Pipelines</i>	30	15	0	0			45
Total	30	41	0	0	511	0	581
Plumas							
<i>Facilities</i>	28	4,784	0	0	44,374	3	49,188
<i>Pipelines</i>	212	107	0	0			319

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Total	240	4,890	0	0	44,374	3	49,507
Shasta							
<i>Facilities</i>	56	3,786	0	3,670	919,506	51	927,070
<i>Pipelines</i>	2,250	1,130	0	0			3,380
Total	2,306	4,916	0	3,670	919,506	51	930,449
Sierra							
<i>Facilities</i>	0	0	0	0	551	0	551
<i>Pipelines</i>	30	15	0	0			45
Total	30	15	0	0	551	0	596
Siskiyou							
<i>Facilities</i>	0	3,049	0	0	4,835	10	7,894
<i>Pipelines</i>	1,279	642	0	0			1,921
Total	1,279	3,691	0	0	4,835	10	9,816
Sutter							
<i>Facilities</i>	0	246	0	0	6,808	0	7,054
<i>Pipelines</i>	30	15	0	0			45
Total	30	261	0	0	6,808	0	7,099
Tehama							
<i>Facilities</i>	0	4,661	0	75	5,770	3	10,508
<i>Pipelines</i>	130	65	0	0			195
Total	130	4,726	0	75	5,770	3	10,703

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Trinity							
<i>Facilities</i>	0	0	0	0	6,323	0	6,323
<i>Pipelines</i>	36	18	0	0			54
Total	36	18	0	0	6,323	0	6,377
Yuba							
<i>Facilities</i>	0	131	0	0	793	0	923
<i>Pipelines</i>	25	13	0	0			38
Total	25	143	0	0	793	0	961
Total	5,041	21,686	0	4,406	1,118,521	74	1,149,729
Region Total	5,041	21,686	0	4,406	1,118,521	74	1,149,729

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	0.10 - 0.30
	Building Contents	0.00 - 0.10
	Business Interruption	0.00 - 0.10
Infrastructure	Lifelines Damage	
Total		0.10 - 0.50

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	2,300	240	260	2,800
Minor	540	130	100	770
Major	90	20	10	120
Destroyed	< 10	< 10	< 10	< 10
Total	2,930	390	370	3,690

Estimated Casualties : Night Time

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

Estimated Shelter Needs

Type	Households	People
Displaced Households	10 - 20	25 - 50
Public Shelter	0	10

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 : 7.29

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 1,350,947

Building Exposure : (\$ Millions)

Residential	193,128
Commercial	51,695
Other	47,236
Total	292,059

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	0.10 - 0.30
	Building Contents	0.00 - 0.10
	Business Interruption	0.00 - 0.10
Infrastructure	Lifelines Damage	
Total		0.10 - 0.50

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	2,300	240	260	2,800
Minor	540	130	100	770
Major	90	20	10	120
Destroyed	< 10	< 10	< 10	< 10
Total	2,930	390	370	3,690

Estimated Casualties : Day Time

Severity Level	Description	# Persons
Level 1	Medical Aid	10 - 20
Level 2	Hospital Care	< 10
Level 3	Life-threatening	< 10
Level 4	Fatalities	< 10

Estimated Shelter Needs

Type	Households	People
Displaced Households	10 - 20	25 - 50
Public Shelter	0	10

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:

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Earthquake Information

Location :

Origin Time:

Magnitude : 7.29

Epicenter Latitude/Longitude :
/

Depth & Type : /U

Name :
NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 1,350,947

Building Exposure : (\$ Millions)

Residential	193,128
Commercial	51,695
Other	47,236
Total	292,059

Counties : See Appendix

Major Metro Area :

Hazus Quick Assessment Report

Estimated Economic Loss (\$ Billions)

Category	Description	Range
General Building Stock	Building Damage	0.10 - 0.30
	Building Contents	0.00 - 0.10
	Business Interruption	0.00 - 0.10
Infrastructure	Lifelines Damage	
Total		0.10 - 0.50

Preliminary Damage Assessment (PDA) Estimates

Description	Residential	Commercial	Other	Total
Affected	2,300	240	260	2,800
Minor	540	130	100	770
Major	90	20	10	120
Destroyed	< 10	< 10	< 10	< 10
Total	2,930	390	370	3,690

Estimated Casualties : Commute Time

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

Estimated Shelter Needs

Type	Households	People
Displaced Households	10 - 20	25 - 50
Public Shelter	0	10

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 : 7.29

Epicenter Latitude/Longitude :

/

Depth & Type : /U

Name :

NA

Ground Motion /Attenuation :

Maximum PGA: 0.00

Information Sources:

Comments :

Population and Building Exposure

Population: 1,350,947

Building Exposure : (\$ Millions)

Residential	193,128
Commercial	51,695
Other	47,236
Total	292,059

Counties : See Appendix

Major Metro Area :

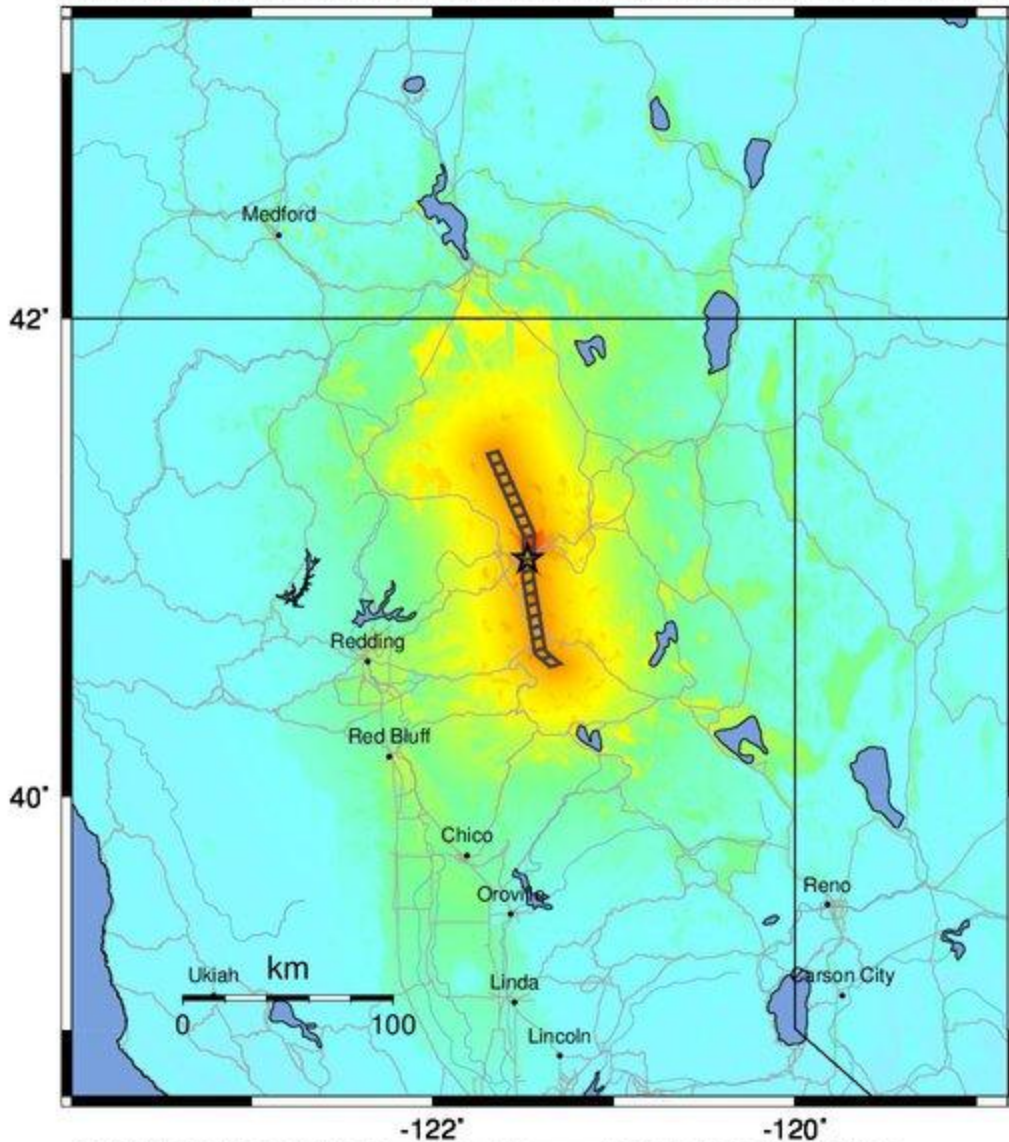
Shelter Summary Report

June 03, 2024

	# of Displaced Households	# of People Needing Short Term Shelter
California		
Butte	0	0
Colusa	0	0
Del Norte	0	0
Glenn	0	0
Lassen	0	0
Modoc	0	0
Nevada	0	0
Placer	0	0
Plumas	0	0
Shasta	10	5
Sierra	0	0
Siskiyou	0	0
Sutter	0	0
Tehama	0	0
Trinity	0	0
Yuba	0	0
Total	10	5
Region Total	10	5

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 Hat Creek-McArthur-Mayfield - Median ground motions Scenario
 Scenario Date: May 16, 2017 08:31:49 AM MDT M 7.3 N41.00 W121.48 Depth: 6.1km



PLANNING SCENARIO ONLY -- Map Version 10 Processed 2017-05-16 06:42:11 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)