Hazus: Earthquake Global Risk Report

Region Name: WarmSpringsValley

Earthquake Scenario: 1605_m6p92_se Warm Springs Valley

Print Date: May 06, 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 15 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 30,908.07 square miles and contains 365 census tracts. There are over 557 thousand households in the region which has a total population of 1,458,318 peopleF. The distribution of population by Total Region and County is provided in Appendix B.

There are an estimated 620 thousand buildings in the region with a total building replacement value (excluding contents) of 317,067 (millions of dollars). Approximately 91.00 % of the buildings (and 69.00% of the building value) are associated with residential housing.

The replacement value of the transportation and utility lifeline systems is estimated to be 40,523 and 70,870 (millions of dollars) , respectively.

Building and Lifeline Inventory

Building Inventory

Hazus estimates that there are 620 thousand buildings in the region which have an aggregate total replacement value of 317,067 (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 85% 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 41 hospitals in the region with a total bed capacity of 3,061 beds. There are 737 schools, 422 fire stations, 81 police stations and 18 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 111,393.00 (millions of dollars). This inventory includes over 3,674.79 miles of highways, 2,837 bridges, 94,027.10 miles of pipes.

Table 1: Transportation System Lifeline Inventory

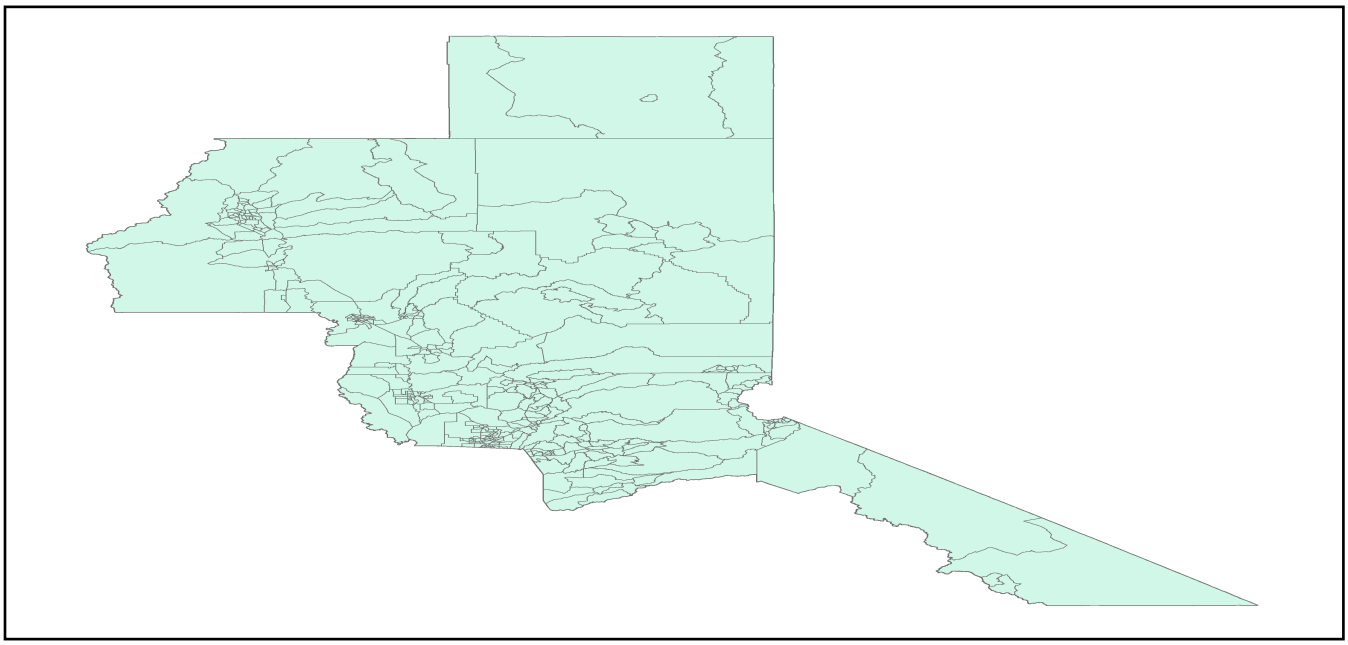
System	Component	# Locations/ # Segments	Replacement value (millions of dollars)
Highway	Bridges	2,837	7087.2147
	Segments	1,037	24289.6615
	Tunnels	8	43.1476
		Subtotal	**31420.0238**
Railways	Bridges	596	3391.2400
	Facilities	7	18.6410
	Segments	574	5058.7922
	Tunnels	0	0.0000
		Subtotal	**8468.6732**
Light Rail	Bridges	0	0.0000
	Facilities	0	0.0000
	Segments	0	0.0000
	Tunnels	0	0.0000
		Subtotal	**0.0000**
Bus	Facilities	8	17.6074
		Subtotal	**17.6074**
Ferry	Facilities	0	0.0000
		Subtotal	**0.0000**
Port	Facilities	0	0.0000
		Subtotal	**0.0000**
Airport	Facilities	48	286.4600
	Runways	51	330.3703
		Subtotal	**616.8303**
		Total	**40,523.10**

Table 2: Utility System Lifeline Inventory

System	Component	# Locations / Segments	Replacement value (millions of dollars)
Potable Water	Distribution Lines	NA	1874.0822
	Facilities	5	196.4700
	Pipelines	0	0.0000
		Subtotal	**2070.5522**
Waste Water	Distribution Lines	NA	1124.4493
	Facilities	50	8597.5900
	Pipelines	0	0.0000
		Subtotal	**9722.0393**
Natural Gas	Distribution Lines	NA	749.6329
	Facilities	3	123.7305
	Pipelines	257	4917.5597
		Subtotal	**5790.9231**
Oil Systems	Facilities	1	0.1180
	Pipelines	0	0.0000
		Subtotal	**0.1180**
Electrical Power	Facilities	131	53276.8428
		Subtotal	**53276.8428**
Communication	Facilities	81	9.5580
		Subtotal	**9.5580**
		Total	**70,870.00**

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	1605_m6p92_se Warm Springs Valley
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	6.92
Depth (km)	NA
Rupture Length (Km)	NA
Rupture Orientation (degrees)	NA
Attenuation Function	NA

Direct Earthquake Damage

Building Damage

Hazus estimates that about 55 buildings will be at least moderately damaged. This is over 0.00 % of the buildings in the region. There are an estimated 0 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

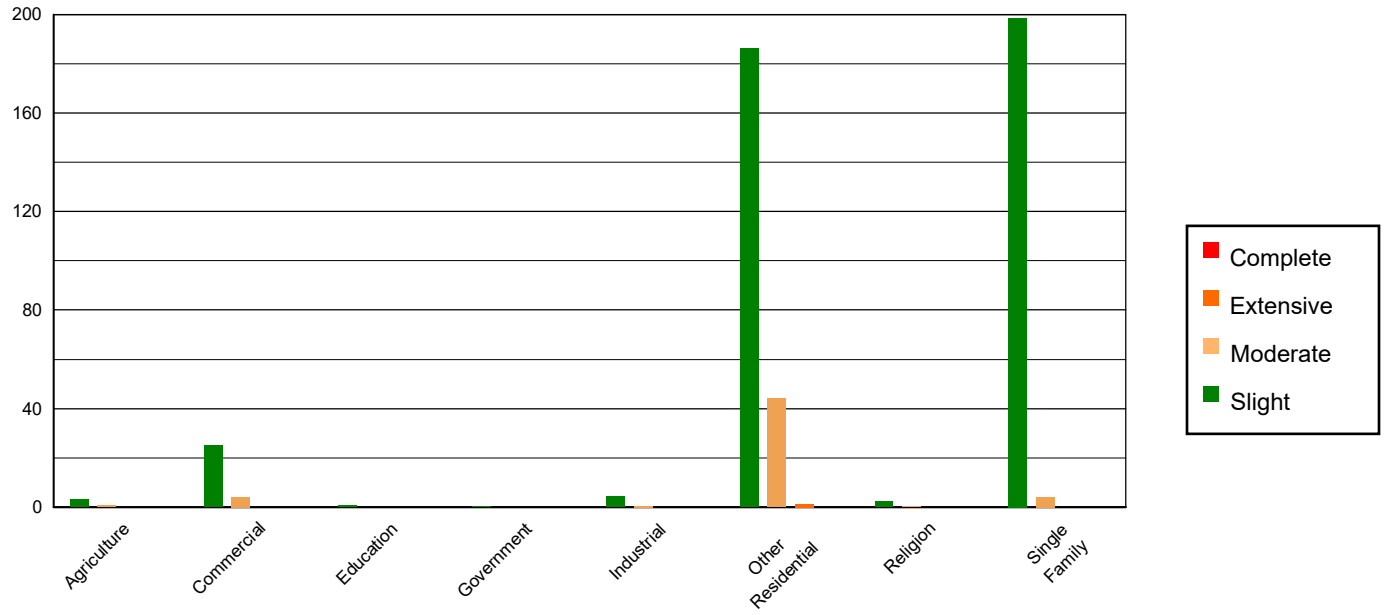


Table 3: Expected Building Damage by Occupancy

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Agriculture	6573.98	1.06	3.25	0.77	0.76	1.39	0.01	0.95	0.00	0.00
Commercial	37142.50	5.99	25.12	5.97	4.23	7.79	0.15	9.46	0.00	8.91
Education	1096.17	0.18	0.72	0.17	0.10	0.19	0.00	0.06	0.00	0.00
Government	1641.74	0.26	0.25	0.06	0.01	0.01	0.00	0.00	0.00	0.00
Industrial	10032.92	1.62	4.48	1.07	0.60	1.10	0.00	0.25	0.00	0.00
Other Residential	96686.45	15.61	186.07	44.24	44.08	81.11	1.39	88.84	0.01	91.09
Religion	1934.43	0.31	2.24	0.53	0.32	0.60	0.01	0.44	0.00	0.00
Single Family	464464.26	74.97	198.50	47.19	4.24	7.80	0.00	0.00	0.00	0.00
Total	**619,572**		**421**		**54**		**2**		**0**	

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

	None		Slight		Moderate		Extensive		Complete	
	Count	(%)	Count	(%)	Count	(%)	Count	(%)	Count	(%)
Wood	524759.79	84.70	246.88	58.69	5.30	9.75	0.00	0.07	0.00	0.00
Steel	12835.10	2.07	12.94	3.08	3.93	7.23	0.47	29.89	0.01	62.95
Concrete	12912.96	2.08	11.04	2.62	2.50	4.60	0.25	16.04	0.00	19.09
Precast	8994.44	1.45	7.48	1.78	1.41	2.59	0.02	0.97	0.00	0.00
RM	16596.03	2.68	8.25	1.96	1.32	2.43	0.01	0.46	0.00	0.00
URM	1541.84	0.25	8.54	2.03	1.77	3.26	0.09	6.01	0.00	17.96
MH	41932.30	6.77	125.51	29.84	38.12	70.14	0.73	46.55	0.00	0.00
Total	**619,572**		**421**		**54**		**2**		**0**	

*Note:

RM Reinforced Masonry
URM Unreinforced Masonry
MH Manufactured Housing

Essential Facility Damage

Before the earthquake, the region had 3,061 hospital beds available for use. On the day of the earthquake, the model estimates that only 3,055 hospital beds (100.00%) are available for use by patients already in the hospital and those injured by the earthquake. After one week, 100.00% 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	41	0	0	41
Schools	737	0	0	732
EOCs	18	0	0	18
PoliceStations	81	0	0	81
FireStations	422	0	0	420

Transportation Lifeline Damage

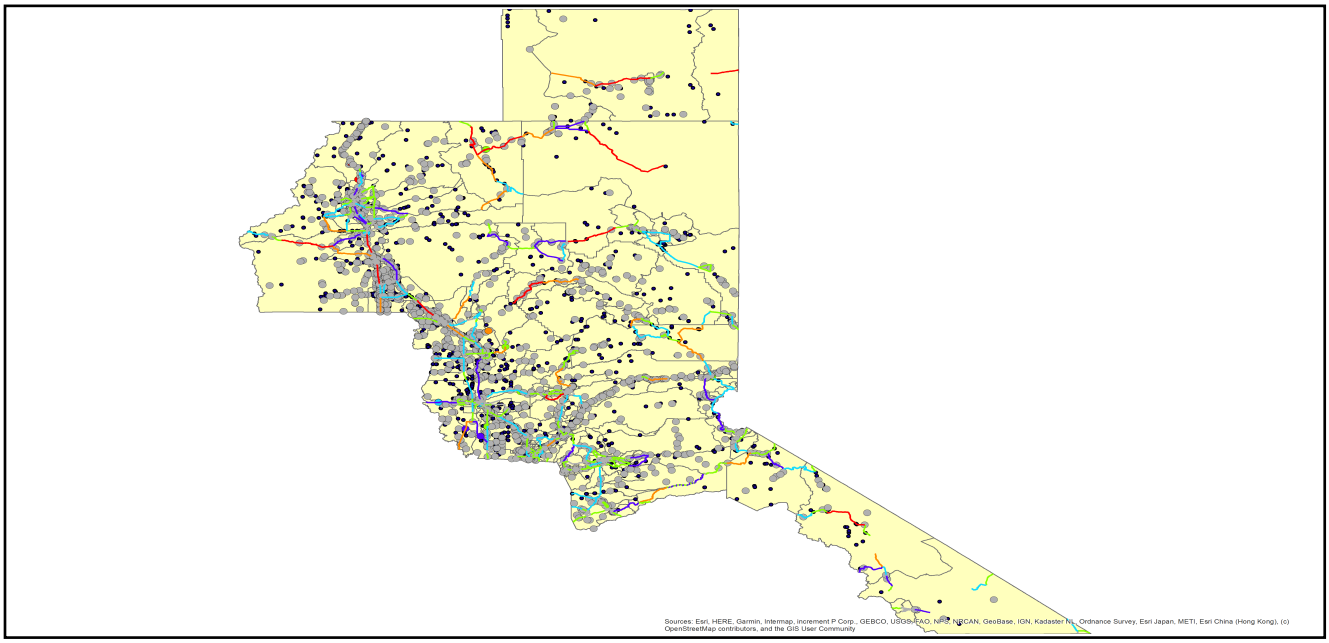


Table 6: Expected Damage to the Transportation Systems

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	1,037	0	0	1,037	1,037
	Bridges	2,837	0	0	2,837	2,837
	Tunnels	8	0	0	8	8
Railways	Segments	574	0	0	574	574
	Bridges	596	0	0	596	596
	Tunnels	0	0	0	0	0
	Facilities	7	0	0	7	7
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	8	0	0	8	8
Ferry	Facilities	0	0	0	0	0
Port	Facilities	0	0	0	0	0
Airport	Facilities	48	0	0	48	48
	Runways	51	0	0	51	51

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	5	0	0	5	5
Waste Water	50	0	0	50	50
Natural Gas	3	0	0	3	3
Oil Systems	1	0	0	1	1
Electrical Power	131	0	0	131	131
Communication	81	0	0	81	81

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

System	Total Pipelines Length (miles)	Number of Leaks	Number of Breaks
Potable Water	58,225	190	47
Waste Water	34,935	95	24
Natural Gas	868	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	557,253	0	0	0	0	0
Electric Power		0	0	0	0	0

Induced Earthquake Damage

Fire Following Earthquake

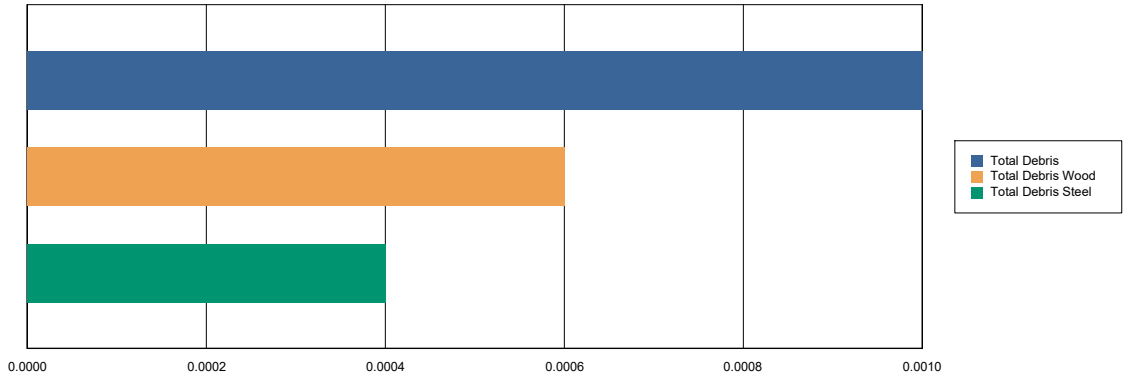
Fires often occur after an earthquake. Because of the number of fires and the lack of water to fight the fires, they can often burn out of control. Hazus uses a Monte Carlo simulation model to estimate the number of ignitions and the amount of burnt area. For this scenario, the model estimates that there 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 1,000 tons of debris will be generated. Of the total amount, Brick/Wood comprises 60.00% 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 40 truckloads (@25 tons/truck) to remove the debris generated by the earthquake.

Earthquake Debris (millions of tons)



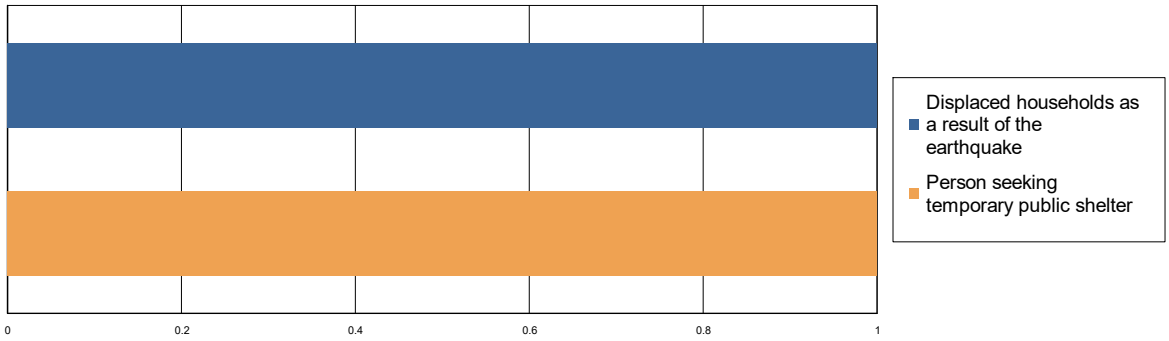
Brick/ Wood	Reinforced Concrete/Steel	Total Debris	Truck Load
0.00	0.00	0.00	40 (@25 tons/truck)

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 1 households to be displaced due to the earthquake. Of these, 1 people (out of a total population of 1,458,318) will seek temporary shelter in public shelters.

Displaced Households/ Persons Seeking Short Term Public Shelter



Displaced households as a result of the earthquake	Persons seeking temporary public shelter
1	1

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	0.00	0.00	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	0.00	0.00	0.00	0.00
	Other-Residential	0.54	0.04	0.00	0.00
	Single Family	0.25	0.00	0.00	0.00
	Total	**1**	**0**	**0**	**0**
2 PM	Commercial	0.29	0.02	0.00	0.00
	Commuting	0.00	0.00	0.00	0.00
	Educational	0.09	0.01	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	0.01	0.00	0.00	0.00
	Other-Residential	0.24	0.02	0.00	0.00
	Single Family	0.11	0.00	0.00	0.00
	Total	**1**	**0**	**0**	**0**
5 PM	Commercial	0.19	0.01	0.00	0.00
	Commuting	0.01	0.02	0.03	0.01
	Educational	0.00	0.00	0.00	0.00
	Hotels	0.00	0.00	0.00	0.00
	Industrial	0.01	0.00	0.00	0.00
	Other-Residential	0.19	0.01	0.00	0.00
	Single Family	0.09	0.00	0.00	0.00
	Total	**0**	**0**	**0**	**0**

Economic Loss

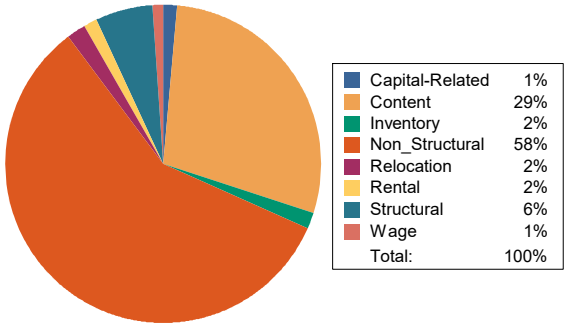
The total economic loss estimated for the earthquake is 87.84 (millions of dollars), which includes building and lifeline related losses based on the region's available inventory. The following three sections provide more detailed information about these losses.

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 17.51 (millions of dollars); 6 % 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 52 % 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)

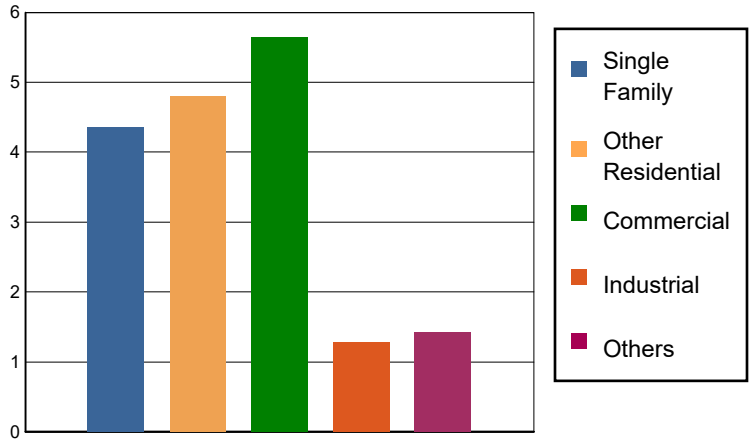


Table 11: Building-Related Economic Loss Estimates

(Millions of dollars)

Category	Area	Single Family	Other Residential	Commercial	Industrial	Others	Total
Income Losses							
	Wage	0.0000	0.0042	0.1558	0.0025	0.0116	0.1741
	Capital-Related	0.0000	0.0018	0.2180	0.0015	0.0040	0.2253
	Rental	0.0181	0.1057	0.1559	0.0023	0.0028	0.2848
	Relocation	0.0257	0.1283	0.1303	0.0104	0.0314	0.3261
	Subtotal	**0.0438**	**0.2400**	**0.6600**	**0.0167**	**0.0498**	**1.0103**
Capital Stock Losses							
	Structural	0.2872	0.3149	0.2739	0.0413	0.1009	1.0182
	Non_Structural	2.7687	3.2134	2.7496	0.6748	0.7391	10.1456
	Content	1.2624	1.0331	1.8167	0.4883	0.4401	5.0406
	Inventory	0.0000	0.0000	0.1387	0.0623	0.0919	0.2929
	Subtotal	**4.3183**	**4.5614**	**4.9789**	**1.2667**	**1.3720**	**16.4973**
	Total	**4.36**	**4.80**	**5.64**	**1.28**	**1.42**	**17.51**

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	24289.6615	0.0000	0.00
	Bridges	7087.2147	0.2287	0.00
	Tunnels	43.1476	0.0000	0.00
	Subtotal	**31420.0238**	**0.2287**	
Railways	Segments	5058.7922	0.0000	0.00
	Bridges	3391.2400	0.2634	0.01
	Tunnels	0.0000	0.0000	0.00
	Facilities	18.6410	0.0370	0.20
	Subtotal	**8468.6732**	**0.3004**	
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	17.6074	0.0496	0.28
	Subtotal	**17.6074**	**0.0496**	
Ferry	Facilities	0.0000	0.0000	0.00
	Subtotal	**0.0000**	**0.0000**	
Port	Facilities	0.0000	0.0000	0.00
	Subtotal	**0.0000**	**0.0000**	
Airport	Facilities	286.4600	2.9198	1.02
	Runways	330.3703	0.0000	0.00
	Subtotal	**616.8303**	**2.9198**	
	Total	**40,523.13**	**3.50**	

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	196.4700	0.3495	0.18
	Distribution Lines	1874.0822	0.8538	0.05
	Subtotal	**2070.5522**	**1.2033**	
Waste Water	Pipelines	0.0000	0.0000	0.00
	Facilities	8597.5900	3.7357	0.04
	Distribution Lines	1124.4493	0.4289	0.04
	Subtotal	**9722.0393**	**4.1646**	
Natural Gas	Pipelines	4917.5597	0.0000	0.00
	Facilities	123.7305	0.0027	0.00
	Distribution Lines	749.6329	0.1469	0.02
	Subtotal	**5790.9231**	**0.1496**	
Oil Systems	Pipelines	0.0000	0.0000	0.00
	Facilities	0.1180	0.0000	0.00
	Subtotal	**0.1180**	**0.0000**	
Electrical Power	Facilities	53276.8428	61.3122	0.12
	Subtotal	**53276.8428**	**61.3122**	
Communication	Facilities	9.5580	0.0043	0.04
	Subtotal	**9.5580**	**0.0043**	
	Total	**70,870.03**	**66.83**	

Appendix A: County Listing for the Region

Alpine,CA

Amador,CA

Butte,CA

El Dorado,CA

Lassen,CA

Modoc,CA

Mono,CA

Nevada,CA

Placer,CA

Plumas,CA

Shasta,CA

Sierra,CA

Sutter,CA

Tehama,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					
	Alpine	1,204	721	139	861
	Amador	40,474	5,608	2,517	8,125
	Butte	211,632	25,875	16,639	42,514
	El Dorado	191,185	34,907	9,704	44,611
	Lassen	32,730	4,033	2,008	6,042
	Modoc	8,700	1,435	1,468	2,904
	Mono	13,195	3,293	1,083	4,377
	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
	Sutter	99,633	10,618	6,448	17,066
	Tehama	65,829	7,705	5,113	12,818
	Yuba	81,575	8,161	4,677	12,839
Total Region		**1,458,318**	**218,545**	**98,507**	**317,060**

Building Damage by Count by General Occupancy

RiskMAP
Increasing Resilience Together

May 06, 2024

	# of Buildings					
	None	Slight	Moderate	Extensive	Complete	Total
California						
Alpine						
Agriculture	0	0	0	0	0	0
Commercial	48	0	0	0	0	48
Education	5	0	0	0	0	5
Government	4	0	0	0	0	4
Industrial	14	0	0	0	0	14
Religion	1	0	0	0	0	1
Other Residential	97	0	0	0	0	97
Single Family	842	0	0	0	0	842
Amador						
Agriculture	44	0	0	0	0	44
Commercial	1,368	0	0	0	0	1,368
Education	23	0	0	0	0	23
Government	32	0	0	0	0	32
Industrial	235	0	0	0	0	235
Religion	45	0	0	0	0	45
Other Residential	1,037	0	0	0	0	1,037
Single Family	14,962	0	0	0	0	14,962
Butte						

	# of Buildings					
	None	Slight	Moderate	Extensive	Complete	Total
Agriculture	*510*	*0*	*0*	*0*	*0*	*510*
Commercial	*6,385*	*0*	*0*	*0*	*0*	*6,385*
Education	*172*	*0*	*0*	*0*	*0*	*172*
Government	*147*	*0*	*0*	*0*	*0*	*147*
Industrial	*1,522*	*0*	*0*	*0*	*0*	*1,522*
Religion	*531*	*0*	*0*	*0*	*0*	*531*
Other Residential	*21,498*	*0*	*0*	*0*	*0*	*21,498*
Single Family	*50,283*	*0*	*0*	*0*	*0*	*50,283*
El Dorado						
Agriculture	*161*	*0*	*0*	*0*	*0*	*161*
Commercial	*4,768*	*0*	*0*	*0*	*0*	*4,768*
Education	*128*	*0*	*0*	*0*	*0*	*128*
Government	*100*	*0*	*0*	*0*	*0*	*100*
Industrial	*1,199*	*0*	*0*	*0*	*0*	*1,199*
Religion	*180*	*0*	*0*	*0*	*0*	*180*
Other Residential	*10,420*	*0*	*0*	*0*	*0*	*10,420*
Single Family	*71,424*	*0*	*0*	*0*	*0*	*71,424*
Lassen						
Agriculture	*34*	*2*	*1*	*0*	*0*	*37*
Commercial	*896*	*14*	*3*	*0*	*0*	*913*
Education	*39*	*1*	*0*	*0*	*0*	*40*
Government	*22*	*0*	*0*	*0*	*0*	*22*
Industrial	*138*	*2*	*0*	*0*	*0*	*140*
Religion	*69*	*2*	*0*	*0*	*0*	*71*
Other Residential	*2,449*	*136*	*40*	*1*	*0*	*2,627*

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
	Single Family	*9,389*	*169*	*4*	*0*	*0*	*9,562*
Modoc							
	Agriculture	*449*	*0*	*0*	*0*	*0*	*449*
	Commercial	*532*	*0*	*0*	*0*	*0*	*532*
	Education	*20*	*0*	*0*	*0*	*0*	*20*
	Government	*16*	*0*	*0*	*0*	*0*	*16*
	Industrial	*76*	*0*	*0*	*0*	*0*	*76*
	Religion	*36*	*0*	*0*	*0*	*0*	*36*
	Other Residential	*1,994*	*0*	*0*	*0*	*0*	*1,994*
	Single Family	*3,740*	*0*	*0*	*0*	*0*	*3,740*
Mono							
	Agriculture	*145*	*0*	*0*	*0*	*0*	*145*
	Commercial	*654*	*0*	*0*	*0*	*0*	*654*
	Education	*21*	*0*	*0*	*0*	*0*	*21*
	Government	*18*	*0*	*0*	*0*	*0*	*18*
	Industrial	*108*	*0*	*0*	*0*	*0*	*108*
	Religion	*32*	*0*	*0*	*0*	*0*	*32*
	Other Residential	*1,759*	*0*	*0*	*0*	*0*	*1,759*
	Single Family	*7,704*	*0*	*0*	*0*	*0*	*7,704*
Nevada							
	Agriculture	*132*	*0*	*0*	*0*	*0*	*132*
	Commercial	*2,834*	*1*	*0*	*0*	*0*	*2,835*
	Education	*108*	*0*	*0*	*0*	*0*	*108*
	Government	*60*	*0*	*0*	*0*	*0*	*60*
	Industrial	*1,161*	*0*	*0*	*0*	*0*	*1,161*

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
	Religion	*189*	*0*	*0*	*0*	*0*	*189*
	Other Residential	*6,381*	*3*	*0*	*0*	*0*	*6,384*
	Single Family	*43,277*	*3*	*0*	*0*	*0*	*43,280*
Placer							
	Agriculture	*258*	*0*	*0*	*0*	*0*	*258*
	Commercial	*8,538*	*0*	*0*	*0*	*0*	*8,538*
	Education	*231*	*0*	*0*	*0*	*0*	*231*
	Government	*377*	*0*	*0*	*0*	*0*	*377*
	Industrial	*2,703*	*0*	*0*	*0*	*0*	*2,703*
	Religion	*382*	*0*	*0*	*0*	*0*	*382*
	Other Residential	*14,843*	*0*	*0*	*0*	*0*	*14,843*
	Single Family	*134,719*	*0*	*0*	*0*	*0*	*134,719*
Plumas							
	Agriculture	*83*	*1*	*0*	*0*	*0*	*84*
	Commercial	*1,204*	*9*	*1*	*0*	*0*	*1,215*
	Education	*26*	*0*	*0*	*0*	*0*	*26*
	Government	*45*	*0*	*0*	*0*	*0*	*45*
	Industrial	*182*	*2*	*0*	*0*	*0*	*184*
	Religion	*30*	*0*	*0*	*0*	*0*	*30*
	Other Residential	*4,983*	*46*	*4*	*0*	*0*	*5,032*
	Single Family	*9,850*	*27*	*0*	*0*	*0*	*9,877*
Shasta							
	Agriculture	*3,235*	*0*	*0*	*0*	*0*	*3,235*
	Commercial	*5,254*	*0*	*0*	*0*	*0*	*5,254*
	Education	*136*	*0*	*0*	*0*	*0*	*136*

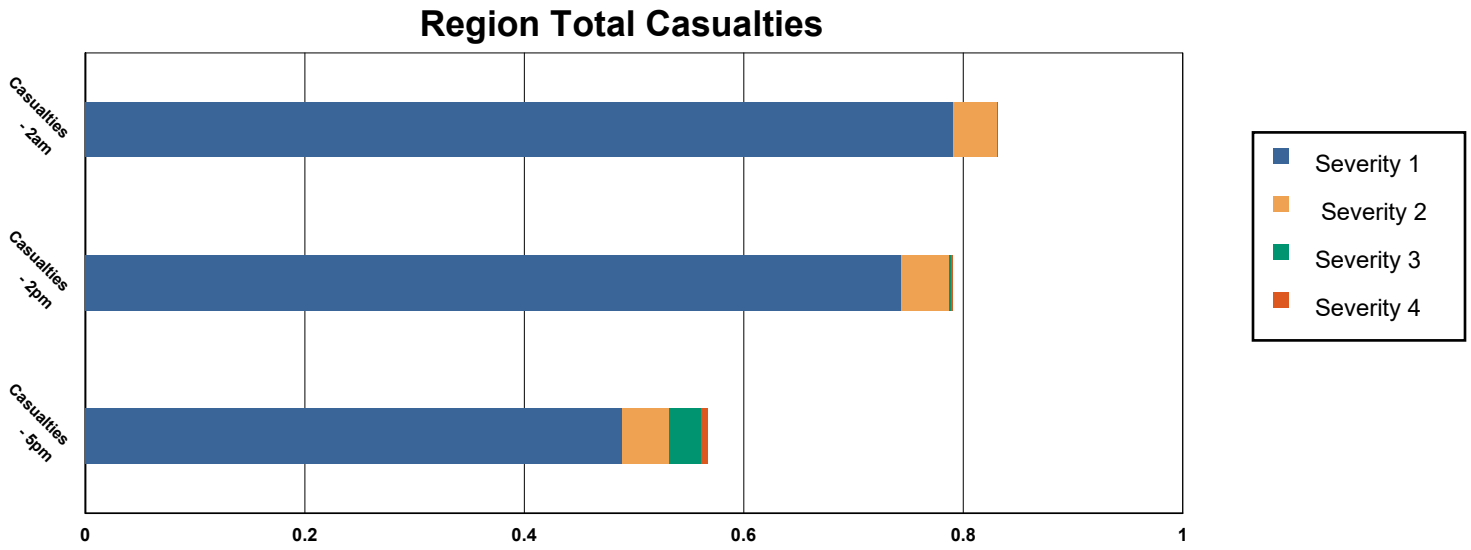
		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
	Government	*87*	*0*	*0*	*0*	*0*	*87*
	Industrial	*1,038*	*0*	*0*	*0*	*0*	*1,038*
	Religion	*66*	*0*	*0*	*0*	*0*	*66*
	Other Residential	*16,949*	*0*	*0*	*0*	*0*	*16,949*
	Single Family	*51,815*	*0*	*0*	*0*	*0*	*51,815*
Sierra							
	Agriculture	*7*	*0*	*0*	*0*	*0*	*7*
	Commercial	*141*	*0*	*0*	*0*	*0*	*141*
	Education	*14*	*0*	*0*	*0*	*0*	*14*
	Government	*16*	*0*	*0*	*0*	*0*	*16*
	Industrial	*66*	*0*	*0*	*0*	*0*	*66*
	Religion	*12*	*0*	*0*	*0*	*0*	*12*
	Other Residential	*153*	*0*	*0*	*0*	*0*	*153*
	Single Family	*1,858*	*0*	*0*	*0*	*0*	*1,858*
Sutter							
	Agriculture	*1,125*	*0*	*0*	*0*	*0*	*1,125*
	Commercial	*2,052*	*0*	*0*	*0*	*0*	*2,052*
	Education	*62*	*0*	*0*	*0*	*0*	*62*
	Government	*77*	*0*	*0*	*0*	*0*	*77*
	Industrial	*636*	*0*	*0*	*0*	*0*	*636*
	Religion	*154*	*0*	*0*	*0*	*0*	*154*
	Other Residential	*3,113*	*0*	*0*	*0*	*0*	*3,113*
	Single Family	*24,512*	*0*	*0*	*0*	*0*	*24,512*
Tehama							
	Agriculture	*299*	*0*	*0*	*0*	*0*	*299*

		# of Buildings					
		None	Slight	Moderate	Extensive	Complete	Total
	Commercial	*1,270*	*0*	*0*	*0*	*0*	*1,270*
	Education	*57*	*0*	*0*	*0*	*0*	*57*
	Government	*50*	*0*	*0*	*0*	*0*	*50*
	Industrial	*552*	*0*	*0*	*0*	*0*	*552*
	Religion	*110*	*0*	*0*	*0*	*0*	*110*
	Other Residential	*3,991*	*0*	*0*	*0*	*0*	*3,991*
	Single Family	*21,222*	*0*	*0*	*0*	*0*	*21,222*
Yuba							
	Agriculture	*92*	*0*	*0*	*0*	*0*	*92*
	Commercial	*1,199*	*0*	*0*	*0*	*0*	*1,199*
	Education	*54*	*0*	*0*	*0*	*0*	*54*
	Government	*591*	*0*	*0*	*0*	*0*	*591*
	Industrial	*404*	*0*	*0*	*0*	*0*	*404*
	Religion	*98*	*0*	*0*	*0*	*0*	*98*
	Other Residential	*7,021*	*0*	*0*	*0*	*0*	*7,021*
	Single Family	*18,867*	*0*	*0*	*0*	*0*	*18,867*
Total		**619,572**	**421**	**54**	**2**	**0**	**620,049**
Region Total		**619,572**	**421**	**54**	**2**	**0**	**620,049**

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

May 06, 2024



	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Alpine					
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

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Alpine					
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**
Amador					
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**
Butte					
Casualties - 2am					
Commuting	0	0	0	0	0

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Butte					
Casualties - 2am					
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**
El Dorado					
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

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
El Dorado					
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	1
Single Family	0	0	0	0	0
Total Casualties - 2am	**1**	**0**	**0**	**0**	**1**
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	**1**	**0**	**0**	**0**	**1**
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				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
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**
Mono					
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				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Mono					
Casualties - 2pm					
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
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

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Nevada					
Total Casualties - 5pm	**0**	**0**	**0**	**0**	**0**
Placer					
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**
Plumas					
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

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Plumas					
Casualties - 2pm					
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**
Shasta					
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

	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Shasta					
Casualties - 5pm					
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Total Casualties - 5pm	**0**	**0**	**0**	**0**	**0**
Sierra					
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				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
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

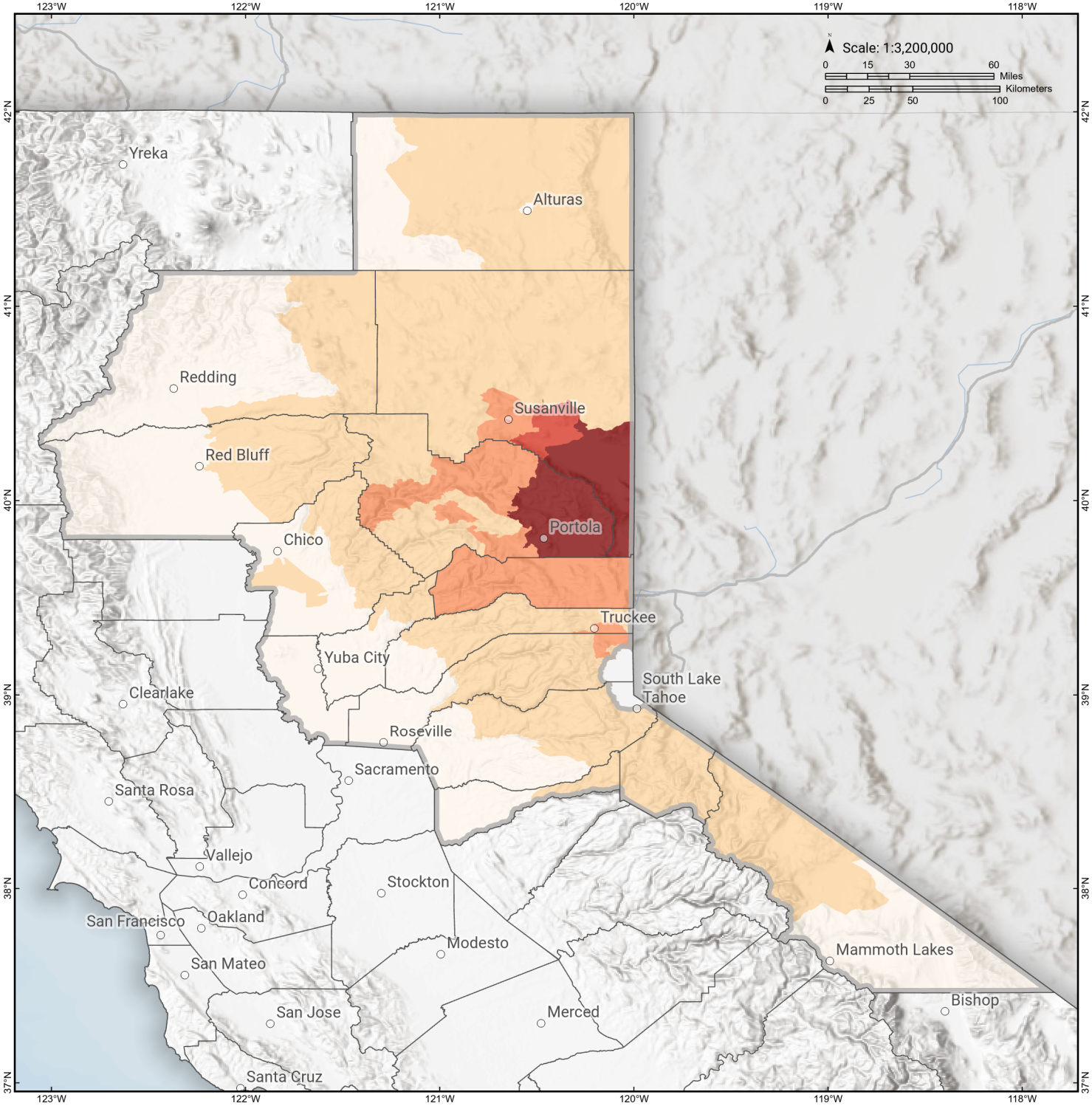
	Injury Severity Level				
	Severity 1	Severity 2	Severity 3	Severity 4	Total
California					
Tehama					
Casualties - 5pm					
Educational	0	0	0	0	0
Hotels	0	0	0	0	0
Industrial	0	0	0	0	0
Other-Residential	0	0	0	0	0
Single Family	0	0	0	0	0
Total Casualties - 5pm	**0**	**0**	**0**	**0**	**0**
Yuba					
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**
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.

Warm Springs Valley fault zone

Debris Generated by Census Tract

California Department of Conservation
California Geological Survey



Study Region: Warm Springs Valley fault zone
Scenario: 1605_m6p92_se

Debris Generated *(in tons)*

- 0
- >0 - 1
- >1 - 10
- >10 - 100
- >100 - 820

Debris Summary Report

May 06, 2024

All values are in thousands of tons.

	Brick, Wood & Others	Concrete & Steel	Total
California			
Alpine	0	0	0
Amador	0	0	0
Butte	0	0	0
El Dorado	0	0	0
Lassen	1	0	1
Modoc	0	0	0
Mono	0	0	0
Nevada	0	0	0
Placer	0	0	0
Plumas	0	0	0
Shasta	0	0	0
Sierra	0	0	0
Sutter	0	0	0
Tehama	0	0	0
Yuba	0	0	0
Total	**1**	**0**	**1**
Region Total	**1**	**0**	**1**

Study Region : WarmSpringsValley

Scenario : 1605_m6p92_se Warm Springs Valley

	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

May 6, 2024

All values are in thousands of dollars

	Capital Stock Losses					Income Losses				
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss	Loss Ratio %	Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	Total Loss
California										
Shasta	0	1	0	0	0.00	0	0	0	0	1
Tehama	0	1	1	0	0.00	0	0	0	0	2
Plumas	196	2,891	1,529	86	0.04	43	59	49	66	4,920
Butte	0	2	1	0	0.00	0	0	0	0	4
Nevada	16	408	230	20	0.00	1	2	3	3	683
Yuba	0	1	0	0	0.00	0	0	0	0	1
Alpine	0	0	0	0	0.00	0	0	0	0	0
Lassen	800	6,371	2,996	166	0.12	281	163	121	213	11,113
Sutter	0	0	0	0	0.00	0	0	0	0	0

	Capital Stock Losses					Income Losses				
	Cost Structural Damage	Cost Non-struct. Damage	Cost Contents Damage	Inventory Loss	Loss Ratio %	Relocation Loss	Capital Related Loss	Wages Losses	Rental Income Loss	Total Loss
Mono	0	0	0	0	0.00	0	0	0	0	1
Placer	3	213	123	8	0.00	0	1	1	2	350
El Dorado	1	146	88	5	0.00	0	0	0	0	241
Amador	0	0	0	0	0.00	0	0	0	0	0
Modoc	0	2	1	0	0.00	0	0	0	0	4
Sierra	2	109	70	7	0.01	0	0	0	0	190
Total	**1,018**	**10,146**	**5,041**	**293**	**0.01**	**326**	**225**	**174**	**285**	**17,509**
Region Total	**1,018**	**10,146**	**5,041**	**293**	**0.01**	**326**	**225**	**174**	**285**	**17,509**

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

May 06, 2024

All values are in thousands of dollars

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
California								
Alpine								
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**
Amador								
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**
Butte								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	11	11

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**12**
El Dorado								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	45	0	0	77	122
Total	**0**	**0**	**0**	**45**	**0**	**0**	**77**	**122**
Lassen								
Segments	0	0	0					0
Bridges	196	248	0					444
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	1,695	1,695
Total	**196**	**248**	**0**	**0**	**0**	**0**	**1,695**	**2,140**
Modoc								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	6	6
Total	**0**	**0**	**0**	**0**	**0**	**0**	**6**	**6**
Mono								
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**
Nevada								
Segments	0	0	0					0
Bridges	1	0	0					1
Tunnels	0	0	0					0
Facilities		26	0	0	0	0	57	82
Total	**1**	**26**	**0**	**0**	**0**	**0**	**57**	**84**
Placer								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		11	0	2	0	0	68	82
Total	**0**	**11**	**0**	**2**	**0**	**0**	**68**	**82**
Plumas								
Segments	0	0	0					0
Bridges	30	15	0					45
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	706	706
Total	**30**	**15**	**0**	**0**	**0**	**0**	**706**	**751**
Shasta								
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**
Sierra								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	217	217
Total	**0**	**0**	**0**	**0**	**0**	**0**	**217**	**218**
Sutter								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	0	0	0	14	14
Total	**0**	**0**	**0**	**0**	**0**	**0**	**14**	**14**
Tehama								
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**
Yuba								
Segments	0	0	0					0
Bridges	0	0	0					0
Tunnels	0	0	0					0
Facilities		0	0	2	0	0	11	14

	Highway	Railway	Light Rail	Bus Facility	Ports	Ferries	Airport	Total
Total	0	0	0	2	0	0	11	14
Total	229	300	0	50	0	0	2,920	3,499
Region Total	229	300	0	50	0	0	2,920	3,499

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

May 06, 2024

All values are in thousands of dollars

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
California							
Alpine							
Facilities	0	0	0	0	0	0	0
Pipelines	2	1	0	0			2
Total	2	1	0	0	0	0	2
Amador							
Facilities	0	3	0	0	17	0	20
Pipelines	4	2	0	0			5
Total	4	4	0	0	17	0	25
Butte							
Facilities	1	3	0	0	4,215	0	4,218
Pipelines	25	13	0	0			38
Total	26	15	0	0	4,215	0	4,256
El Dorado							
Facilities	1	10	0	0	3,490	0	3,501

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Pipelines	22	11	0	0			33
Total	23	21	0	0	3,490	0	3,535
Lassen							
Facilities	0	123	0	0	21,237	3	21,363
Pipelines	459	230	0	0			689
Total	459	353	0	0	21,237	3	22,052
Modoc							
Facilities	0	0	0	0	0	0	0
Pipelines	28	14	0	0			43
Total	28	14	0	0	0	0	43
Mono							
Facilities	0	0	0	0	0	0	0
Pipelines	5	3	0	0			8
Total	5	3	0	0	0	0	8
Nevada							
Facilities	0	259	0	0	749	1	1,009
Pipelines	36	18	0	0			53
Total	36	277	0	0	749	1	1,062
Placer							
Facilities	0	26	0	0	3,734	0	3,760
Pipelines	32	16	0	0			47

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Total	32	42	0	0	3,734	0	3,807
Plumas							
Facilities	348	3,295	0	0	22,497	1	26,140
Pipelines	140	70	0	0			210
Total	488	3,365	0	0	22,497	1	26,351
Shasta							
Facilities	0	0	0	3	43	0	46
Pipelines	16	8	0	0			24
Total	16	8	0	3	43	0	71
Sierra							
Facilities	0	0	0	0	4,219	0	4,219
Pipelines	44	22	0	0			66
Total	44	22	0	0	4,219	0	4,285
Sutter							
Facilities	0	5	0	0	317	0	323
Pipelines	20	10	0	0			30
Total	20	15	0	0	317	0	353
Tehama							
Facilities	0	3	0	0	0	0	3
Pipelines	9	4	0	0			13
Total	9	7	0	0	0	0	16

	Potable Water	Waste Water	Oil Systems	Natural Gas	Electric Power	Communication	Total
Yuba							
Facilities	0	10	0	0	793	0	803
Pipelines	13	6	0	0			19
Total	13	17	0	0	793	0	822
Total	**1,203**	**4,165**	**0**	**3**	**61,312**	**4**	**66,687**
Region Total	**1,203**	**4,165**	**0**	**3**	**61,312**	**4**	**66,687**

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.

Warm Springs Valley fault zone

Displaced Households by Census Tract

California Department of Conservation
California Geological Survey

Study Region: Warm Springs Valley fault zone
Scenario: 1605_m6p92_se

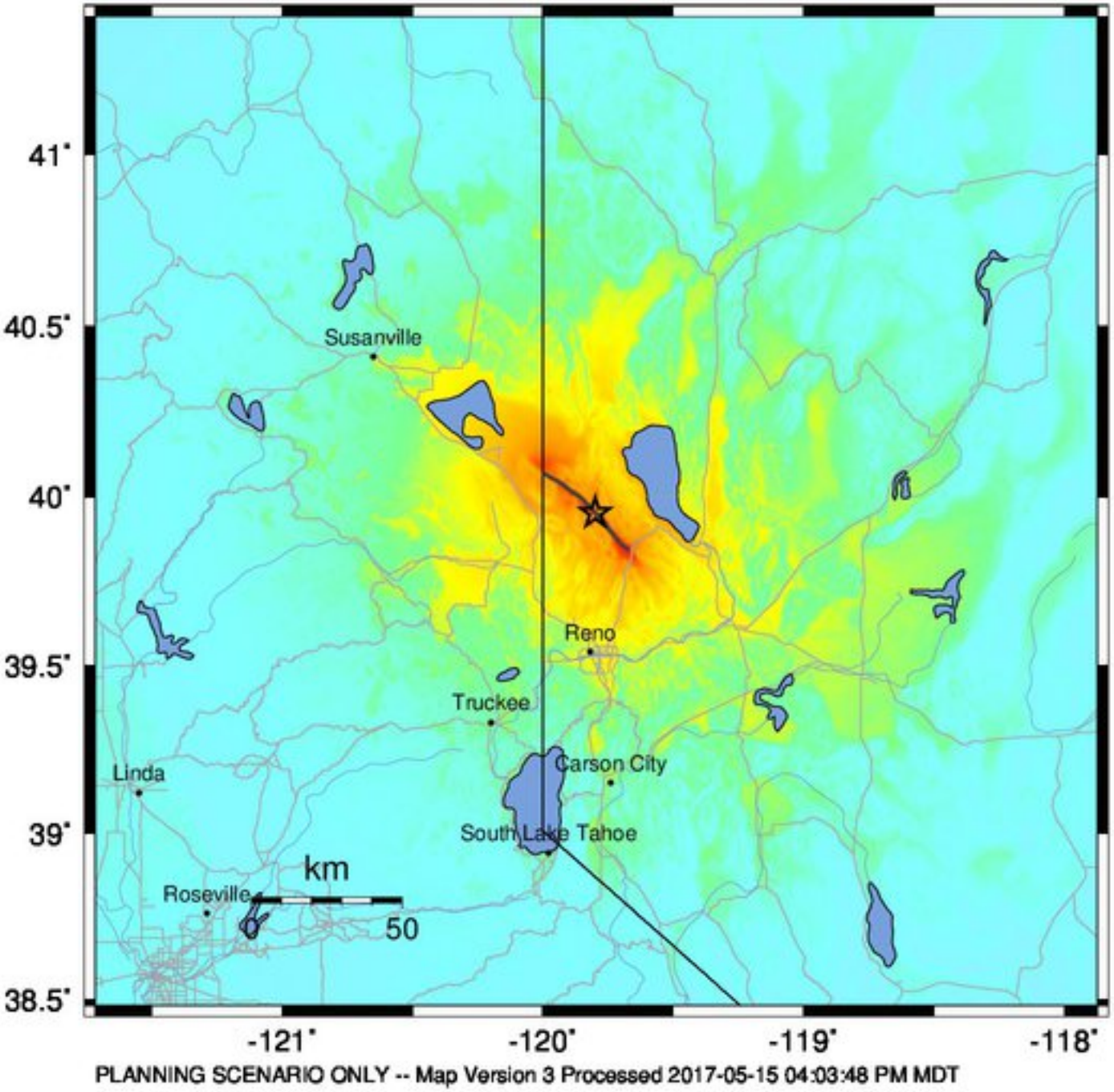
Displaced Households

- 0
- 1
- 2

-- Earthquake Planning Scenario --

ShakeMap for Warm Springs Valley fault zone - Median ground motions Scenario

Scenario Date: May 12, 2017 02:14:12 PM MDT M 6.9 N39.95 W119.80 Depth: 9.0km



PLANNING SCENARIO ONLY -- Map Version 3 Processed 2017-05-15 04:03:48 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)

Warm Springs Valley fault zone

Loss Ratio by Census Tract

California Department of Conservation
California Geological Survey

Study Region: Warm Springs Valley fault zone
Scenario: 1605_m6p92_se

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

- 0%
- >0 - 2%

HAZUS™

FEMA

RiskMAP
Increasing Resilience Together

Shelter Summary Report

May 06, 2024

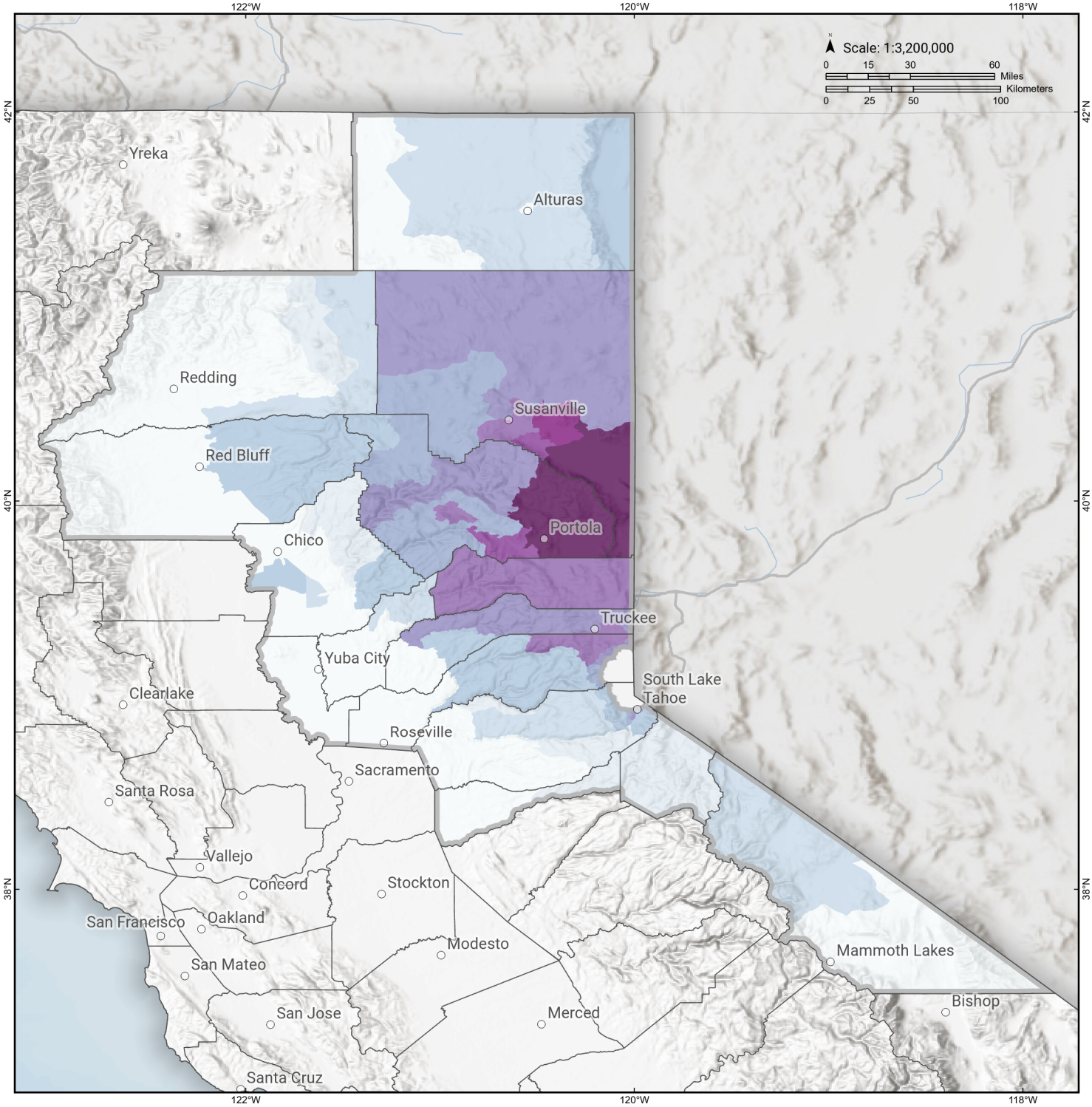
	# of Displaced Households	# of People Needing Short Term Shelter
California		
Alpine	0	0
Amador	0	0
Butte	0	0
El Dorado	0	0
Lassen	2	1
Modoc	0	0
Mono	0	0
Nevada	0	0
Placer	0	0
Plumas	0	0
Shasta	0	0
Sierra	0	0
Sutter	0	0
Tehama	0	0
Yuba	0	0
Total	**2**	**1**
Region Total	**2**	**1**

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.

Warm Springs Valley fault zone

Total Building Related Economic Loss by Census Tract

California Department of Conservation
California Geological Survey



Study Region: Warm Springs Valley fault zone
Scenario: 1605_m6p92_se

Economic Loss *(in USD $)*

- 0
- >0 - 500
- >500 - 1,000
- >1,000 - 5,000
- >5,000 - 15,000
- >15,000 - 50,000
- >50,000 - 200,000
- >200,000 - 500,000
- >500,000 - 2,000,000
- >2,000,000 - 8,942,000