

Merced County, CA

Risk-assessment baseline packet

Unit **County area 06047** Release **2026-10** As of **2026-09-28** Storm Events data through **2026-06-30**

Hazard Plain is an independent product built from public federal data. It is not a FEMA document and is not reviewed or endorsed by FEMA or any state agency.

A starting point for the plan's risk assessment (FEMA Local Mitigation Plan Review Tool, Element B). It does not replace local data or FEMA review. Section headings say which FEMA review item each table supports; whether an item is satisfied is decided by the plan and its reviewers.

OPENFEMA DISCLAIMER

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Plan clock

Status	Approved, expires 2027-05-20	Plan	Merced County (FEMA plan 108102)
Approved	2022-05-21	Expires	2027-05-20
As of	2026-09-28	Days	234 days to expiry
Update underway	none in FEMA's plan tracker		

What changed since your last plan (approved 2022-05-21)

New federal declarations	EM-3591-CA, DR-4683-CA, EM-3592-CA, DR-4699-CA (4 declaration rows; 2 counted incidents)	Storm Events records since approval	172 (data through 2026-06-30)
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Repetitive loss now	FMA RL 3, SRL 2 (44 CFR 77.2); any definition: 20	Repeat-flood change	First release: no prior release to compare.
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SOURCES: FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API); FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API); NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>; FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

Plan status for every jurisdiction listed in this county

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Merced County	County	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Atwater city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Dos Palos city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Gustine city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Livingston city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Los Banos city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Merced city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	234		
Central California Irrigation District	Flood Control District	Expired on 2023-05-30	Central California Irrigation District (FEMA plan 104939)	2018-05-31	2023-05-30	-1,217		
San Luis Water District	Water/Sewer Authority	Expired on 2023-05-30	Central California Irrigation District (FEMA plan 104939)	2018-05-31	2023-05-30	-1,217		

SOURCE: FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

State plan status and tribal plans in this state: see the state page.

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Supports B1-a: hazards

Hazards NRI does not cover: check locally

- dam failure (incl. upstream dams)
 - levee failure
 - flash flood as its own subtype
 - ice jams
- debris flows
 - erosion (riverine and coastal)
 - land subsidence and sinkholes
 - expansive soils

The 18 National Risk Index hazards, ranked by expected annual loss (EAL)

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage	EAL total (see note) modeled dollars per year	Storm Events records since 1996 count	Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
1	Drought	Very High	Very High		\$70,182,596		\$70,182,596	20		
2	Earthquake	Relatively High	Relatively High	\$45,419,229		\$16,965,503	\$62,384,732			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
3	Inland Flooding	Relatively High	Relatively Moderate	\$57,819,554	\$619,575	\$382,997	\$58,822,126	133		
4	Heat Wave	Relatively High	Relatively High	\$2,295	\$4,420,132	\$5,751,281	\$10,173,707	42		
5	Wildfire	Relatively Moderate	Relatively Moderate	\$1,433,983	\$20,970	\$117,700	\$1,572,654	6		
6	Lightning	Relatively High	Relatively Moderate	\$48,781		\$690,034	\$738,814	9		
7	Hail	Relatively Low	Relatively Low	\$37,087	\$298,374	\$67,303	\$402,764	11		
8	Tornado	Relatively Low	Very Low	\$221,935	\$10,912	\$88,958	\$321,805	11		
9	Strong Wind	Relatively Low	Relatively Low	\$43,156	\$35,695	\$72,520	\$151,371	54		Includes 34 High Wind records and 15 Strong Wind records, event types the NRI definition of this hazard leaves out.

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage	EAL total (see note) modeled dollars per year	Storm Events records since 1996 count	Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
10	Winter Weather	Very Low	Relatively Low	\$688	under \$1	\$13,268	\$13,956	3		
11	Landslide	Very Low	Very Low	\$393		\$1,127	\$1,520	4		
12	Volcanic Activity	Very Low	Very Low	under \$1		\$10	\$10	0		No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
13	Avalanche	Very Low	Very Low	\$0		\$1	\$1	1		
14	Cold Wave	No Rating	No Expected Annual Losses	\$0	\$0	\$0	\$0	44		Includes 44 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
	Coastal Flooding	Not Applicable	Not Applicable					0		Declared 1 time; no Storm Events record of this type.
	Hurricane	Not Applicable	Not Applicable					0	NRI rates hurricane Not Applicable for this county, and no counted federal declaration for this county names it (EM-3248-CA names it but is not counted as a local occurrence; see B1-d).	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Ice Storm	Not Applicable	Not Applicable					0		Declared 1 time; no Storm Events record of this type.
	Tsunami	Not Applicable	Not Applicable					0	NRI rates tsunami Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.

Total = buildings + agriculture + population equivalence; FEMA values each expected death (or 10 injuries) at \$13.7 million (2024 dollars).

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Check your state hazard mitigation plan's hazard list for this county; explain any hazard you drop.

Supports B1-b: location

Where each hazard occurs

Hazard	Location	Census tracts rated rated of all tracts
Avalanche	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	1 of 63

Hazard	Location	Census tracts rated
		<i>rated of all tracts</i>
Coastal Flooding	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 63
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	0 of 63
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	53 of 63
Earthquake	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	63 of 63
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	63 of 63
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	63 of 63
Hurricane	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 63
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	0 of 63
Inland Flooding	The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center (https://msc.fema.gov) for this county.	63 of 63
Landslide	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	29 of 63
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	63 of 63
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	63 of 63
Tornado	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	63 of 63
Tsunami	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 63
Volcanic Activity	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	8 of 63
Wildfire	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	55 of 63
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	63 of 63

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Supports B1-c: extent

Extent: scale, observed range and worst recorded event per hazard

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Avalanche	none (count and damage)	1, 2022 to 2022 (1 zone-level)		No damage reported in 1 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Physical measure: in event narratives only; local data required.
Coastal Flood, Storm Surge/ Tide	none in data (FIRM for depth)	0					Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	0					Wind chill: in event narratives only; local data required.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Frost/Freeze (outside NRI Cold Wave definition)	crop damage	44, 2019 to 2026 (44 zone- level)		No crop damage reported in 44 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Temperature: in event narratives only; local data required.
Drought	US Drought Monitor D- scale	20, 2021 to 2022 (20 zone- level)	610 days; 1 with a recorded value	610 days (20 months), 2021-05-01 to 2022-12-31, a run of 20 consecutive Storm Events drought records, zone- level		Zone-level records: applies countywide; national data do not locate these events within the county.	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					No Storm Events record; local data required (e.g., USGS).
Hail	hail size (inches)	11, 1998 to 2019	0.25 in to 1.75 in (median 0.88 in); 10 with a recorded value	1.75 in hail, 2012-04-12	Hail, 1998-04-13, property not reported; \$713,000 crops (1998 dollars)	Event records naming member places: Atwater city (4 records), Merced city (3 records), Livingston city (1 record).	
Excessive Heat, Heat	heat index (narratives)	42, 2019 to 2026 (42 zone- level)	1 day to 12 days (median 3 days); 37 with a recorded value	12 consecutive days, 2024-07-02 to 2024-07-13, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Heat index: in event narratives only; local data required. Heat records from November to March (unseasonable warmth, not a heat wave) are counted but not used for the longest run.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's event type and category, so a Hurricane (Typhoon) record, especially an inland or remnant one, does not by itself mean hurricane-force winds here; read the damage and wind columns.
Ice Storm	Sperry-Piltz (local data)	0					Ice thickness: in event narratives only; local data required.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Flash Flood, Flood, Lakeshore Flood	damage and flood days (FIRM for depth)	133, 1997 to 2025		Flash Flood, 1998-03-25, \$9,600,000 property; \$1,500,000 crops (1998 dollars)		Event records naming member places: Merced city (5 records), Gustine city (4 records), Livingston city (4 records), Dos Palos city (3 records), Los Banos city (3 records), Atwater city (1 record).	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage can be \$0 or blank even for a major flood, so the worst record here may not be the worst flood; compare FEMA Public Assistance by declaration in B1-d.
Debris Flow	none (count and damage)	4, 2018 to 2024		No damage reported in 4 records.		No event record names a member place.	Physical measure: in event narratives only; local data required.
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	9, 1998 to 2016		Lightning, 2016-05-05, \$1,000,000 property; \$0 crops (2016 dollars)		Event records naming member places: Merced city (3 records), Atwater city (1 record), Dos Palos city (1 record).	Storm Events lists lightning with damage or casualties; physical measure in event narratives only; local data required.
High Wind and Strong Wind (outside NRI Strong Wind definition)	wind speed (kt and mph)	49, 2001 to 2026 (47 zone-level)	30 kt (35 mph) to 81 kt (93 mph) (median 55 kt (63 mph)); 47 with a recorded value	81 kt (93 mph) measured gust, High Wind, 2025-02-13; NWS zone CAZ300 (WEST SIDE MOUNTAINS NORTH OF HIGHWAY 198), zone-level: may include parts of neighboring counties	High Wind, 2024-02-04, \$20,000 property; \$0 crops, reported for the zone (2024 dollars)	No event record names a member place. Zone-level records (47) apply countywide.	
Thunderstorm Wind	wind speed (kt and mph)	8, 1957 to 2007	50 kt (58 mph) to 80 kt (92 mph) (median 57.5 kt (66 mph)); 6 with a recorded value	80 kt (92 mph), measurement type not recorded, Thunderstorm Wind, 1996-04-01	Thunderstorm Wind, 1995-06-15, \$50,000 property; \$3,000,000 crops (1995 dollars)	Event records naming member places: Los Banos city (3 records), Gustine city (1 record), Merced city (1 record).	

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Tornado	Enhanced Fujita (F before Feb 2007)	17, 1955 to 2009	F/EF0 to F/EF1 (median F/EF0); 16 with a recorded value	F1 tornado, 1978-03-04, 1 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 880 yd wide, \$250,000 property; crops not recorded (1978 dollars), 1 direct injury	Tornado, 2002-12-16, \$400,000 property; crops not reported (2002 dollars)	Event records naming member places: Merced city (3 records), Los Banos city (2 records), Atwater city (1 record).	From 1996 on, tornado records are per-county segments and length is the path length within this county (NWS Instruction 10-1605); records before 1996 may give the whole path length, including the path outside this county, and before 1996 a tornado is listed once, under the county where it began, with the whole path's rating; counties farther along the path may not list it. Length is not used to rank tornadoes.
Tsunami	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Volcanic Ash, Volcanic Ashfall	Volcanic Explosivity Index (local data)	0					Physical measure: in event narratives only; local data required.
Wildfire	acres burned (local data)	6, 2001 to 2020 (2 zone-level)		Wildfire, 2003-06-02, \$15,000 property; crops not reported (2003 dollars)		Event records naming member places: Los Banos city (2 records), Gustine city (1 record), Merced city (1 record). Zone-level records (2) apply countywide.	Acres burned: in event narratives only; local data required.
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall local)	3, 2023 to 2026 (3 zone-level)		Winter Storm, 2023-01-09, \$5,200,000 property; \$0 crops, reported for the zone (2023 dollars); NWS zone CAZ317 (MARIPOSA - MADERA FOOTHILLS), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Snow depth: in event narratives only; local data required.

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

Dollars are nominal (as reported), labeled with the year; not adjusted for inflation.

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Supports B1-d: previous occurrences

Declaration rows

19

Counted incidents

14

Federal disaster declarations for this county

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2023-04-03	2023-02-21	DR-4699-CA	Major disaster	SEVERE WINTER STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES	Ice Storm; Inland Flooding; Landslide; Strong Wind; Winter Weather	\$2,581,148.47	new since last plan; within last 5 years	
2023-03-10	2023-03-09	EM-3592-CA	Emergency	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Winter Weather	none found	new since last plan; within last 5 years	same incident as DR-4699
2023-01-14	2022-12-27	DR-4683-CA	Major disaster	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Winter Weather	\$7,430,934.96	new since last plan; within last 5 years	
2023-01-09	2023-01-08	EM-3591-CA	Emergency	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Winter Weather	none found	new since last plan; within last 5 years	same incident as DR-4683
2020-03-22	2020-01-20	DR-4482-CA	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$2,788,385.15		
2020-03-13	2020-01-20	EM-3428-CA	Emergency	COVID-19	Non-natural, not counted	none found		same incident as DR-4482
2017-04-01	2017-02-01	DR-4308-CA	Major disaster	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Winter Weather	\$587,527.75		
2017-02-14	2017-01-03	DR-4301-CA	Major disaster	SEVERE WINTER STORMS, FLOODING, AND MUDSLIDES	Inland Flooding; Landslide; Winter Weather	\$598,973.68		
2007-03-13	2007-01-11	DR-1689-CA	Major disaster	SEVERE FREEZE	Cold Wave	PA not declared for this county		
2006-06-05	2006-03-29	DR-1646-CA	Major disaster	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding; Landslide	\$515,294.78		
2005-09-13	2005-08-29	EM-3248-CA	Emergency	HURRICANE KATRINA EVACUATION	Hurricane: evacuation support, not a local hazard event; not counted	none found		
1999-02-09	1998-12-20	DR-1267-CA	Major disaster	CA-CITRUS CROP DAMAGE 2/2/99	Cold Wave	PA not declared for this county		
1998-02-09	1998-02-02	DR-1203-CA	Major disaster	SEVERE WINTER STORMS AND FLOODING	Inland Flooding; Winter Weather	none found		
1997-01-04	1996-12-28	DR-1155-CA	Major disaster	SEVERE STORMS, FLOODING, MUD AND LANDSLIDES	Inland Flooding; Landslide	none found		
1995-03-12	1995-02-13	DR-1046-CA	Major disaster	SEVERE WINTER STORMS, FLOODING LANDSLIDES, MUD FLOW	Inland Flooding; Landslide; Winter Weather	none found		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance		Flags	Notes
						<i>federal share obligated, nominal dollars</i>			
1991-02-11	1990-12-19	DR-894-CA	Major disaster	SEVERE FREEZE	Cold Wave		PA not declared for this county		
1983-02-09	1983-01-21	DR-677-CA	Major disaster	COASTAL STORMS, FLOODS, SLIDES & TORNADOES	Coastal Flooding; Inland Flooding; Landslide; Tornado		none found		
1977-01-20	1977-01-20	EM-3023-CA	Emergency	DROUGHT	Drought		none found		
1969-01-26	1969-01-26	DR-253-CA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding		none found		

County Public Assistance: applicants the FEMA record places in this county, including any state agencies FEMA files there; statewide rows are listed on the state page; federal share obligated, nominal dollars. Dollars are nominal (as reported), labeled with the year; not adjusted for inflation.

SOURCES

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Statewide declarations

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	Flags	Notes
1964-04-01	1964-04-01	DR-169-CA	Major disaster	SEISMIC SEA WAVE	Tsunami		
1963-12-21	1963-12-21	DR-161-CA	Major disaster	FLOOD DUE TO BROKEN DAM	Other, not an NRI hazard; not counted		
1963-02-25	1963-02-25	DR-145-CA	Major disaster	SEVERE STORMS, HEAVY RAINS & FLOODING	Inland Flooding		
1962-10-24	1962-10-24	DR-138-CA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding		
1962-03-06	1962-03-06	DR-122-CA	Major disaster	FLOODS	Inland Flooding		
1961-11-16	1961-11-16	DR-119-CA	Major disaster	FIRE (LOS ANGELES COUNTY)	Wildfire		
1958-04-04	1958-04-04	DR-82-CA	Major disaster	HEAVY RAINSTORMS & FLOOD	Inland Flooding		
1956-12-29	1956-12-29	DR-65-CA	Major disaster	FOREST FIRE	Wildfire		
1955-12-23	1955-12-23	DR-47-CA	Major disaster	FLOOD	Inland Flooding		
1954-02-05	1954-02-05	DR-15-CA	Major disaster	FLOOD & EROSION	Inland Flooding		

FEMA recorded these with designated area Statewide and no county. Listed on every county page in the state; not counted with county rows.
5 Fire Management declarations (1977-08-07 to 1988-09-13) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

SOURCE

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

Previous occurrences by hazard, with explicit no-event rows

Hazard	Storm Events records <i>full period</i>	Since plan approval <i>records</i>	During plan review <i>records</i>	Last 5 years <i>records</i>	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Avalanche	1	0	1	1	0	0	1996 to 2026-06-30	
Coastal Flooding	0	0	0	0	1	0	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)

Hazard	Storm Events records <i>full period</i>	Since plan approval <i>records</i>	During plan review <i>records</i>	Last 5 years <i>records</i>	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Cold Wave	44	25	7	32	3	0	1996 to 2026-06-30	Includes 44 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
Drought	20	7	12	15	1	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		No Storm Events record; local data required (e.g., USGS).
Hail	11	0	0	0	0	0	1955 to 2026-06-30	
Heat Wave	42	22	9	22	0	0	1996 to 2026-06-30	
Hurricane	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Ice Storm	0	0	0	0	1	1	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Inland Flooding	133	79	0	79	10	2	1996 to 2026-06-30	
Landslide	4	2	0	2	8	2	1996 to 2026-06-30	
Lightning	9	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	57	34	5	39	1	1	1955 to 2026-06-30	Includes 34 High Wind records and 15 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	17	0	0	0	1	0	1950 to 2026-06-30	
Tsunami	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Volcanic Activity	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Wildfire	6	0	0	0	0	0	1996 to 2026-06-30	
Winter Weather	3	3	0	3	6	2	1996 to 2026-06-30	

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Notable Storm Events records

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Direct deaths, injuries <i>indirect not counted</i>	Location	Flags	Why listed
2025-02-13	High Wind	81 kt (93 mph) measured gust	\$0 property; \$0 crops, reported for the zone (2025 dollars)	0, 0	NWS zone CAZ300 (WEST SIDE MOUNTAINS NORTH OF HIGHWAY 198), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
2024-07-02	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2024 dollars)	0, 0	NWS zone CAZ300 (WEST SIDE MOUNTAINS NORTH OF HIGHWAY 198), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2021-05-01	Drought		\$0 property; \$0 crops, reported for the zone (2021 dollars)	0, 0	NWS zone CAZ179 (WEST SIDE HILLS), zone-level: may include parts of neighboring counties		B1-c worst recorded: Drought
2020-08-15	Wildfire		property not reported; \$0 crops, reported for the zone (2020 dollars)	1, 0	NWS zone CAZ179 (WEST SIDE HILLS), zone-level: may include parts of neighboring counties		deaths or injuries recorded
2016-05-05	Lightning		\$1,000,000 property; \$0 crops (2016 dollars)	0, 0	SANTA NELLA		B1-c worst recorded: Lightning
2012-04-12	Hail	1.75 in	\$0 property; \$100,000 crops (2012 dollars)	0, 0	ATWATER		B1-c worst recorded: Hail
2003-06-02	Wildfire		\$15,000 property; crops not reported (2003 dollars)	0, 0	MERCED		B1-c worst recorded: Wildfire
2000-04-17	Lightning		damage not reported	0, 1	SANTA NELLA		deaths or injuries recorded
1998-10-24	Flood		\$120,000 property; crops not reported (1998 dollars)	0, 6	HILMAR		deaths or injuries recorded
1998-03-25	Flash Flood		\$9,600,000 property; \$1,500,000 crops (1998 dollars)	0, 0	MERCED		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
1996-04-01	Thunderstorm Wind	80 kt (92 mph), measurement type not recorded	\$230,000 property; \$100,000 crops (1996 dollars)	0, 0	GUSTINE		B1-c worst recorded: Thunderstorm Wind
1978-03-04	Tornado	F1, 1 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 880 yd wide	\$250,000 property; crops not recorded (1978 dollars)	0, 1	location not recorded		B1-c worst recorded: Tornado

The full list is in the **XLSX** file, sheet "B1-d Storm Events history" (347 rows).

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
 FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

State-declared emergencies are not in federal data. Add them from your state emergency management agency.

Tribal and special-area declarations in this state are listed on the state page.

Supports B1-e: probability

Probability: FEMA annualized frequency and descriptor per hazard

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Avalanche	0.01	events per year	about 1 in 100 years	Possible	FEMA annualized frequency (modeled)	0	1994 to 2023 (30 years)	see B1-f	0.01 is NRI's minimum avalanche frequency for a county in an avalanche susceptibility zone; NRI records no avalanche here, so the descriptor reflects the floor, not local events.
Coastal Flooding		events per year at a location (modeled)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Cold Wave	0	event-days per year	none modeled		event-days in 0 of 30 years, 1996 to 2025 (0%)	0	2005-11-12 to 2024-11-12 (19 years)	countywide	No recorded event-days, 1996 to 2025; descriptor not assigned. Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.
Drought	74.2	event-days per year	about 74.2 days per year	Possible	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	2,212	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	NRI gives about 74.2 drought event-days a year here (its annualized frequency over 25.25 years; not its event count divided by the years), but Storm Events has a record in only 2 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.
Earthquake	0.0917	annual probability at a location	chance a given location in the county has at least minor- damage shaking in a year: 9.17%			not shown	modeled	see B1-f	Descriptor not assigned: the NRI value is the chance at a location in the county, not how often the hazard affects the county, and Storm Events does not record earthquakes.
Hail	0.136	events per year	about 1 in 7 years	Likely	FEMA annualized frequency (modeled)	5.1 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	10.1	event-days per year	about 10.1 days per year	Likely	event-days in 7 of 30 years, 1996 to 2025 (23.3%)	118	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 10.1 heat wave event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 7 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Hurricane		events per year					1851 to 2024 (Atlantic); 1949 to 2024 (Pacific)	see B1-f	Not Applicable in NRI for this county; no descriptor.
Ice Storm		event-days per year					1946-12-31 to 2014-02-12 (67 years)	countywide	Not Applicable in NRI for this county; no descriptor.
Inland Flooding	1.86	event-days per year	about 1.86 days per year	Likely	event-days in 18 of 30 years, 1996 to 2025 (60%)	52	1996 to 2023 (28 years)	see B1-f	
Landslide	14.9	events per year (modeled)	about 14.9 per year	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	6.6	days per year with a strike	about 6.6 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.0383	events per year	about 1 in 26 years	Possible	FEMA annualized frequency (modeled)	2	1986 to 2023 (38 years)	countywide	
Tornado	0.217	events per year	about 1 in 5 years	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Volcanic Activity	0.0002	annual probability	about 1 in 5,000 years	Unlikely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Wildfire	0.00518	annual probability at a location	chance a given location in the county burns in a year: 0.518%	Likely	Storm Events records in 3 of 30 years, 1996 to 2025 (10%)	not shown	modeled	see B1-f	Descriptor from Storm Events, not NRI: the NRI value is the chance at a location in the county, not how often the hazard affects the county.
Winter Weather	0.237	event-days per year	about 0.237 days per year	Possible	event-days in 1 of 30 years, 1996 to 2025 (3.33%)	4.59	2005-11-12 to 2024-11-12 (19 years)	countywide	

FEMA annualized frequency (modeled) comes from the National Risk Index v1.20 (December 2025). It is not recorded events divided by years, and what it measures depends on the hazard. For most hazards it estimates how often the hazard affects this county each year: it counts events or event-days (drought, heat wave, cold wave, winter weather, ice storm and inland flooding are in days per year; lightning is the number of days per year with a recorded cloud-to-ground strike, from the NOAA Storm Prediction Center daily lightning climatology); it may count events in the surrounding area (hail, strong wind, tornado, hurricane and ice storm use a 49 km grid and buffers) and is averaged over the county's area; and some hazards use a minimum value for places with no recorded event. Earthquake, wildfire and coastal flooding are different: FEMA computes them for each census block and averages them over the county, so the value is the chance (for coastal flooding, the modeled number of floods per year) at a location in the county, which is lower than the chance that the hazard strikes somewhere in the county. Earthquake is the chance of at least minor-damage shaking (U.S. Geological Survey model); wildfire is the chance that a location burns in a large fire (U.S. Forest Service burn probability); coastal flooding comes from FEMA flood zones and NOAA high-tide flooding, so it can be above 1 where high-tide flooding is frequent. Tsunami is the value at the county's most exposed location, from recorded events and modeled return periods. For these four hazards the packet gives no "1 in N years" and takes the descriptor from Storm Events (none for earthquake) unless the value is 1 or more a year. Landslide is a U.S. Geological Survey modeled county rate spread by slope susceptibility. Volcanic activity is the chance that a volcano affecting the county erupts in a year. Drought counts only extreme and exceptional drought (D3 and D4). Source: FEMA, National Risk Index Technical Documentation v1.20, sections 5.2.2 (Table 5), 5.2.3, 7.4, 10.4, 16.5, 17.1, 17.3.1, 17.5, 20.3.1, 21.4, 22.4 and 6 to 23.

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Descriptor scale used in this packet (defined per unit)

Unit	Descriptor	Definition
events per year	Highly likely	1 or more per year
events per year	Likely	about once in 1 to 10 years
events per year	Possible	about once in 10 to 100 years
events per year	Unlikely	less than once in 100 years
annual probability	Likely	10% to under 100% chance in a given year
annual probability	Possible	1% to under 10% chance in a given year
annual probability	Unlikely	under 1% chance in a given year
event-days (share of years)	Highly likely	event-days recorded in 90% or more of years
event-days (share of years)	Likely	event-days recorded in 10% to under 90% of years
event-days (share of years)	Possible	event-days recorded in some years but under 10% of years
lightning strike-days	Highly likely	cloud-to-ground strikes on 1 or more days per year

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Intensity bands: historical frequency (Storm Events)

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Hail	1.00-1.99 in	1996 to 2025	5	30	0.167
Hail	2.00 in+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	4	30	0.133
Strong Wind (Thunderstorm Wind records)	65 kt+	1996 to 2025	1	30	0.0333
Strong Wind (Thunderstorm Wind records)	unmeasured or below 50 kt	1996 to 2025	0	30	0

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Tornado	EF0-1	1996 to 2025	11	30	0.367
Tornado	EF2-3	1996 to 2025	0	30	0
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

Hail smaller than 1 inch is not counted: on 2010-01-05 the National Weather Service raised its severe-hail threshold from 3/4 inch to 1 inch, so smaller reports became less common after 2009 (NWS Service Change Notice 09-52). NRI hail frequency uses a 0.75 inch threshold.

SOURCE

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Optional: future conditions. Not a required item in the 2025 FEMA Local Mitigation Planning Policy Guide; some states ask for it. The federal Climate Mapping for Resilience and Adaptation (CMRA) site gives county exposure to future climate conditions.

Supports B1-f: variation across the planning area

Range of census tract risk within the county

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Avalanche	1 of 63	1.0	1.0	1.0	Very Low 1, Not Applicable 62	
Coastal Flooding	0 of 63				Not Applicable 63	
Cold Wave	0 of 63				No Rating 63	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Drought	53 of 63	71.3	96.1	100.0	Very High 12, Relatively High 11, Relatively Moderate 20, Relatively Low 8, Very Low 2, No Rating 10	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally.
Earthquake	63 of 63	79.6	87.8	99.8	Very High 6, Relatively High 23, Relatively Moderate 34	
Hail	63 of 63	22.3	34.5	92.4	Relatively High 1, Relatively Moderate 4, Relatively Low 16, Very Low 42	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is 74% of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally.
Heat Wave	63 of 63	63.5	86.2	99.7	Very High 3, Relatively High 34, Relatively Moderate 26	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Hurricane	0 of 63				Not Applicable 63	
Ice Storm	0 of 63				Not Applicable 63	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Inland Flooding	63 of 63	10.5	71.6	99.8	Very High 5, Relatively High 19, Relatively Moderate 25, Relatively Low 12, Very Low 2	

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Landslide	29 of 63	8.6	18.7	93.6	Relatively Low 2, Very Low 27, No Rating 34	
Lightning	63 of 63	19.9	55.8	79.1	Relatively High 1, Relatively Moderate 41, Relatively Low 20, Very Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Strong Wind	63 of 63	10.0	15.1	50.5	Relatively Low 7, Very Low 56	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Tornado	63 of 63	4.2	13.5	36.5	Relatively Low 1, Very Low 62	
Tsunami	0 of 63				Not Applicable 63	
Volcanic Activity	8 of 63	41.1	72.9	78.3	Very Low 8, No Rating 55	
Wildfire	55 of 63	19.4	77.6	98.0	Relatively High 3, Relatively Moderate 9, Relatively Low 25, Very Low 18, No Rating 8	
Winter Weather	63 of 63	14.5	16.9	35.2	Relatively Low 14, Very Low 49	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.

Rated tracts only: No Rating (score 0.0), Not Applicable and Insufficient Data tracts are counted but not used for the minimum, median and maximum.

SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Per-member block (Starter, confirm locally)

Member	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance matched <i>federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since the member's plan</i>	Notes
Merced County	County	Approved, expires 2027-05-20	FMA RL 3, SRL 2; any 17	\$6,917,467.86	0; 0	
Atwater city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$35,337.38	7; 0	Includes \$4,680.58 for declarations not counted as hazard incidents (DR-4482-CA).
Dos Palos city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	none found	4; 1	
Gustine city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$49,115.77	6; 2	Includes \$16,962.10 for declarations not counted as hazard incidents (DR-4482-CA).
Livingston city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$32,917.67	5; 1	
Los Banos city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$7,519.33	10; 1	Includes \$7,519.33 for declarations not counted as hazard incidents (DR-4482-CA).

Member	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance matched <i>federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since the member's plan</i>	Notes
Merced city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 3	\$2,989,251.96	16; 0	

Member rows are whole NFIP communities and need not add up to the county total: a community that extends into another county is counted in full on each member row, while the county table counts only its part in this county.

School districts and special districts get a plan clock row only.

SOURCES

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Supports B2-a and B2-b: assets and impacts

Local data required

County-level starter. The plan must describe impacts for each participant and its own assets.

- Critical facilities and lifelines per hazard
- A problem statement per participant per hazard
- Changes in development in hazard-prone areas since the last approval, or a statement of none (E1-a)
- Future assets

County-level starter: exposure, expected annual loss and damage since the plan

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2022-05-21 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Avalanche	\$0		under 1	\$0		\$1					building exposure is 0 in NRI
Coastal Flooding											Not Applicable in NRI for this county
Cold Wave	\$0	\$0	0	\$0	\$0	\$0			\$0		building exposure is 0 in NRI
Drought		\$1,557,916,889			\$70,182,596		4.5% (agriculture)		\$0		NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$103,548,459,452		281,202	\$45,419,229		\$16,965,503	0.0439%				
Hail	\$57,579,932,987	\$3,783,455,505	281,054	\$37,087	\$298,374	\$67,303	under 0.0001%				

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2022-05-21 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Heat Wave	\$57,579,932,987	\$3,783,455,505	281,054	\$2,295	\$4,420,132	\$5,751,281	under 0.0001%		\$0		
Hurricane											Not Applicable in NRI for this county
Ice Storm										\$2,581,148.47	Not Applicable in NRI for this county
Inland Flooding	\$57,543,788,613	\$1,266,061,340	61,202	\$57,819,554	\$619,575	\$382,997	n/a (see note)	\$10,002,000		\$10,012,083.43	NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/ B2-b. EAL as % of exposure: n/a.
Landslide	\$16,733,663		34	\$393		\$1,127	0.00235%	\$0		\$10,012,083.43	
Lightning	\$57,579,932,987		281,054	\$48,781		\$690,034	under 0.0001%				
Strong Wind	\$57,579,932,987	\$3,783,455,505	281,054	\$43,156	\$35,695	\$72,520	under 0.0001%		\$43,000	\$2,581,148.47	Storm Events damage since the plan includes 1 zone-level High Wind record (\$20,000) and 10 zone-level Strong Wind records (\$23,000), event types the NRI definition of this hazard leaves out.
Tornado	\$57,579,932,987	\$3,783,455,505	281,054	\$221,935	\$10,912	\$88,958	0.000385%				
Tsunami											Not Applicable in NRI for this county
Volcanic Activity	\$57,579,932,987		281,054	under \$1		\$10	under 0.0001%				
Wildfire	\$1,253,885,812	\$1,120,961,879	15,069	\$1,433,983	\$20,970	\$117,700	0.114%				
Winter Weather	\$57,197,793,121	\$3,654,900,308	280,481	\$688	under \$1	\$13,268	under 0.0001%		\$5,200,000	\$10,012,083.43	

Totals since 2022-05-21 (Storm Events through 2026-06-30): 81 county-coded records, 81 with a damage value recorded (including \$0), \$10,002,000; 91 zone-level records, 90 with a damage value recorded (including \$0), \$5,243,000 reported for the zone; Public Assistance on counted declarations \$10,012,083.43 (4 declarations, 2 with PA).

Total = buildings + agriculture + population equivalence; FEMA values each expected death (or 10 injuries) at \$13.7 million (2024 dollars).

FEMA does not split Public Assistance by hazard. A declaration mapped to several hazards is listed under each of them with its full amount, so the per-hazard column must not be added up; the unit total counts each declaration once.

Dollars are nominal (as reported), labeled with the year; not adjusted for inflation.

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Supports B2-a: context

County context

Measure	Value
Population	281,054
Building value (total, not at risk)	\$57,579,932,987
Agriculture value (total, not at risk)	\$3,783,455,505
NRI risk rating (all hazards)	Relatively High
Expected annual loss, buildings and agriculture, all hazards	\$180,615,355
Expected annual loss, population equivalence, all hazards (NRI values each statistical life at \$13.7M; a modeled value of expected deaths and injuries, not property damage)	\$24,150,702
Social vulnerability rating	Relatively High
Community resilience rating	Very Low
NRI version	December 2025

FEMA's all-hazard expected annual loss total adds buildings, agriculture and population equivalence; the two parts are shown separately so the property figure is not read as including the statistical value of life.

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Supports B2-c: repetitive loss

Repetitive loss in this county, both definitions

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	3	Severe repetitive loss, FMA definition (44 CFR 77.2)	2
Repetitive loss, NFIP insurance definition	20	Severe repetitive loss, NFIP insurance definition	2

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

SOURCES
FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Repeat-flood properties: county and state-level rows

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
County total	3	2	20	2	20	0	14
MERCED COUNTY *	3	2	17	2	17	0	12

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
MERCED, CITY OF	0	0	3	0	3	0	2
State level, not in this county: county not reported	0	1	3	0	4	1	0

SOURCESFEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)**Repeat-flood properties by plan member (NFIP community)**

Member	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>	Note
Merced County	060188	3	2	17	2	17	0	12	
Atwater city	060189	0	0	0	0	0	0	0	
Dos Palos city	060443	0	0	0	0	0	0	0	
Gustine city	060447	0	0	0	0	0	0	0	
Livingston city	060450	0	0	0	0	0	0	0	
Los Banos city	060747	0	0	0	0	0	0	0	
Merced city	060191	0	0	3	0	3	0	2	

Per-member types: XLSX sheet 'B2-c Members'.

Member rows are whole NFIP communities and need not add up to the county total: a community that extends into another county is counted in full on each member row, while the county table counts only its part in this county.

SOURCESFEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)**County repeat-flood properties by occupancy group**

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	3	2	19	2	19	0	13
2 to 4 unit residential	0	0	0	0	0	0	0
other residential	0	0	0	0	0	0	0
non-residential	0	0	1	0	1	0	1
not reported	0	0	0	0	0	0	0

Institutional properties cannot be separated in this data: FEMA's occupancy groups have no institutional class, so they fall in non-residential or other residential in the table by occupancy group.

SOURCESFEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

FMA RL and FMA SRL are the Flood Mitigation Assistance definitions (44 CFR 77.2), the ones the FEMA Local Mitigation Planning Policy Guide cites; OpenFEMA's fmaRI field description omits the Increased Cost of Compliance clause of 44 CFR 77.2(i). NFIP repetitive loss (FEMA insurance definition, nfipRI) is 2 or more claims over \$1,000 in 10 years and can drop to false when a property is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured.

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

Counts are aggregates of FEMA's public NFIP Multiple Loss Properties file (as of 2026-08-02). No property is identified. County assignment is FEMA's geocode.

Counts may differ from your state NFIP coordinator's list, which is the source the Handbook names.

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 17 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

Every table above lists its own sources. The full list, for the plan's bibliography (FEMA review item A4-a):

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-28, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_scsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scsd_national.zip), https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx

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Corrections: to report an error, name the packet, the table and what your records show. Contact: to be added

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File hazard-plain_2026-10_CA_06047. Preview: automated baseline.