

Merced County, CA

Risk-assessment baseline packet

County FIPS: 06047 Release: 2026-10 Data as of: 2026-09-30 Storm Events data through: 2026-06-30

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Summary

Plan status as of 2026-09-30: Approved, expires 2027-05-20. Plan: Merced County (FEMA plan 108102), approved 2022-05-21.

Since the plan was approved on 2022-05-21: 4 new hazard declarations (2 incidents): EM-3591-CA (Severe Winter Storms, Flooding, and Mudslides), DR-4683-CA (Severe Winter Storms, Flooding, Landslides, and Mudslides), EM-3592-CA (Severe Winter Storms, Flooding, Landslides, and Mudslides), DR-4699-CA (Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides).

NOAA Storm Events records since that date: 172 records (data through 2026-06-30).

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Drought (\$70,182,596 a year), Earthquake (\$62,384,732) and Inland Flooding (\$58,822,126).

Repetitive-loss flood properties now: FMA RL 3, SRL 2 (44 CFR 77.2); any definition: 20.

The tables that follow are organized by the items of FEMA's Local Mitigation Plan Review Tool, Element B (B1-a to B2-c); each heading says which item its tables support.

TERMS USED

EAL: expected annual loss: FEMA's modeled average yearly loss from a hazard.

NRI: FEMA's National Risk Index (version 1.20, December 2025).

NFIP: National Flood Insurance Program.

RL, SRL: repetitive loss and severe repetitive loss: flood-insured properties with repeated claims (definitions in B2-c).

FMA, HMGP: Flood Mitigation Assistance and Hazard Mitigation Grant Program, FEMA mitigation grants.

PA: FEMA Public Assistance: disaster aid to governments and some nonprofits.

Zone-level: NOAA logged the event for a National Weather Service forecast zone, which may include parts of neighboring counties.

County-coded: NOAA logged the event to this county.

FIPS: the federal code for a place; 06047 is this area.

D0 to D4: U.S. Drought Monitor categories, from abnormally dry (D0) to exceptional drought (D4).

F/EF, EFU: Fujita and Enhanced Fujita tornado ratings; EFU is an unrated tornado.

kt, CONUS: knots (1 kt is about 1.15 mph); the contiguous United States.

CFR: Code of Federal Regulations.

A4-a, E1-a: other items of FEMA's Local Mitigation Plan Review Tool (sources, and changes since the last plan).

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

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Plan clock

Status:	Approved, expires 2027-05-20	Plan:	Merced County (FEMA plan 108102)
Approved:	2022-05-21	Days to expiry:	232
Update underway:	none recorded in FEMA's plan tracker		

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

New federal declarations:	4 new hazard declarations (2 incidents): EM-3591-CA (Severe Winter Storms, Flooding, and Mudslides), DR-4683-CA (Severe Winter Storms, Flooding, Landslides, and Mudslides), EM-3592-CA (Severe Winter Storms, Flooding, Landslides, and Mudslides), DR-4699-CA (Severe Winter Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides)	Storm Events records since approval:	172 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 3, SRL 2 (44 CFR 77.2); any definition: 20	Repeat-flood change:	this release sets the baseline count.

Sources: 1, 2, 4, 6 (numbered list at the end)

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>
Merced County	County	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Atwater city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Dos Palos city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Gustine city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Livingston city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Los Banos city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
Merced city	City	Approved, expires 2027-05-20	Merced County (FEMA plan 108102)	2022-05-21	2027-05-20	232
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	-1,219
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	-1,219

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

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

- 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)

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	Cost of expected deaths and injuries FEMA's dollar value per year, not property damage	EAL total (see note) modeled dollars per year	Storm Events records, 1996 to 2026-06-30 count	Why this hazard can be left out NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
1	Drought	Very High	Very High	n/a	\$70,182,596	n/a	\$70,182,596	20		
2	Earthquake	Relatively High	Relatively High	\$45,419,229	n/a	\$16,965,503	\$62,384,732			Storm Events does not record earthquakes.
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	n/a	\$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 and 15 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
10	Winter Weather	Very Low	Relatively Low	\$688	under \$1	\$13,268	\$13,956	3		
11	Landslide	Very Low	Very Low	\$393	n/a	\$1,127	\$1,520	4		

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Why this hazard can be left out <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
12	Volcanic Activity	Very Low	Very Low	under \$1	n/a	\$10	\$10	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Avalanche	Very Low	Very Low	\$0	n/a	\$1	\$1	1		
14	Cold Wave	No Rating	No Expected Annual Losses	\$0	\$0	\$0	\$0	44		Includes 44 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
	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.

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

NRI risk rating combines expected annual loss with social vulnerability and community resilience; EAL rating rates expected annual loss alone. Both compare this county with all U.S. counties.

Local data needed: state and local volcanic activity records (Storm Events records this hazard only in part).

Not applicable to this county per NRI, with no federal declaration and no Storm Events record since 1996: tsunamis. That is the evidence for leaving them out of the plan.

The state hazard mitigation plan also lists hazards for this county; FEMA asks the plan to explain any hazard it leaves out.

Supports FEMA checklist item B1-b: hazard location

Affects the whole county (national data give no location within it): Cold Wave, Drought, Hail, Heat Wave, Ice Storm, Lightning, Strong Wind and Winter Weather.

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.

Hazards that vary within the county: highest-rated census tracts

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Avalanche	tract 21 (Very Low, 1.0)
Coastal Flooding	no tract has a National Risk Index rating for this hazard
Earthquake	tract 9.01 (Very High, 99.8); tract 21 (Very High, 99.5); tract 4.04 (Very High, 99.3)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 21 (Relatively Low, 93.6); tract 25 (Relatively Low, 84.1); tract 20.02 (Very Low, 73.7)
Tornado	tract 9.01 (Relatively Low, 36.5); tract 21 (Very Low, 26.9); tract 22.01 (Very Low, 25.8)
Volcanic Activity	tract 2.04 (Very Low, 78.3); tract 2.05 (Very Low, 74.9); tract 4.04 (Very Low, 74.3)
Wildfire	tract 25 (Relatively High, 98.0); tract 21 (Relatively High, 97.0); tract 20.01 (Relatively High, 96.9)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 21 is Census Tract 21). FEMA's Resilience Analysis and Planning Tool maps the National Risk Index for every tract: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

Supports FEMA checklist item B1-c: hazard extent

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

Sources: 6, 7

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Avalanche	none (count and damage only)	1 record, 2022 (1 zone-level)		No damage reported in 1 record.		Countywide (zone-level records).	Physical measure: in event narratives only (local data needed).
Coastal Flood, Storm Surge/ Tide	none in data (flood depth: FIRM)	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 needed).

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	44 records, 2019 to 2026 (44 zone-level)		No crop damage reported in 44 records.		Countywide (zone-level records).	Temperature: in event narratives only (local data needed).
Drought	U.S. Drought Monitor scale (D0 to D4)	20 records, 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		Countywide (zone-level records).	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					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	11 records, 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 jurisdictions in the plan: Atwater city (4 records), Merced city (3 records), Livingston city (1 record).	
Excessive Heat, Heat	heat index (in event narratives)	42 records, 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		Countywide (zone-level records).	Heat index: in event narratives only (local data needed). 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 type; flooding from the storm is filed as Flood or Flash Flood records.
Ice Storm	Sperry-Piltz ice scale (local data)	0					Ice thickness: in event narratives only (local data needed).
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	133 records, 1997 to 2025		Flash Flood, 1998-03-25, \$9,600,000 property; \$1,500,000 crops (1998 dollars)		Event records naming jurisdictions in the plan: 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 is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Debris Flow	none (count and damage only)	4 records, 2018 to 2024		No damage reported in 4 records.		No event record names a jurisdiction in the plan.	Physical measure: in event narratives only (local data needed).
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	9 records, 1998 to 2016		Lightning, 2016-05-05, \$1,000,000 property; \$0 crops (2016 dollars)		Event records naming jurisdictions in the plan: 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 needed).
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	49 records, 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	High Wind, 2024-02-04, \$20,000 property; \$0 crops, reported for the zone (2024 dollars)	No event record names a jurisdiction in the plan. Zone-level records (47) apply countywide.	
Thunderstorm Wind	wind speed (kt and mph)	8 records, 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 jurisdictions in the plan: Los Banos city (3 records), Gustine city (1 record), Merced city (1 record).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	17 records, 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 (whole path, pre-1996), 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 jurisdictions in the plan: Merced city (3 records), Los Banos city (2 records), Atwater city (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
Volcanic Ash, Volcanic Ashfall	Volcanic Explosivity Index (local data)	0					Physical measure: in event narratives only (local data needed).
Wildfire	acres burned (local data)	6 records, 2001 to 2020 (2 zone-level)		Wildfire, 2003-06-02, \$15,000 property; crops not reported (2003 dollars)		Event records naming jurisdictions in the plan: 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 needed).
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	3 records, 2023 to 2026 (3 zone-level)		Winter Storm, 2023-01-09, \$5,200,000 property; \$0 crops (2023 dollars); NWS zone CAZ317		Countywide (zone-level records).	Snow depth: in event narratives only (local data needed).

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records whose zone no NWS zone-county file places in this county (mostly before 2020) are not counted here (the Methods page explains the zone matching).

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 19 declarations covering 14 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

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	no Public Assistance recorded	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	no Public Assistance recorded	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	no Public Assistance recorded		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	no Public Assistance recorded		
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	no Public Assistance recorded		
1997-01-04	1996-12-28	DR-1155-CA	Major disaster	Severe Storms, Flooding, Mud and Landslides	Inland Flooding; Landslide	no Public Assistance recorded		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1995-03-12	1995-02-13	DR-1046-CA	Major disaster	Severe Winter Storms, Flooding Landslides, Mud Flow	Inland Flooding; Landslide; Winter Weather	no Public Assistance recorded		
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	no Public Assistance recorded		
1977-01-20	1977-01-20	EM-3023-CA	Emergency	Drought	Drought	no Public Assistance recorded		
1969-01-26	1969-01-26	DR-253-CA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		

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.

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
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, so they are listed on every county page in the state and not counted with county rows. Local data needed: whether each one affected this county.

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.

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</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)
Cold Wave	44	25	7	32	3	0	1996 to 2026-06-30	Includes 44 Frost/Freeze records.
Drought	20	7	12	15	1	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
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 and 15 Strong Wind records.
Tornado	17	0	0	0	1	0	1950 to 2026-06-30	
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	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</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	new since last plan; within last 5 years	B1-c worst recorded: High Wind and Strong Wind
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	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		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		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 (whole path, pre-1996), 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 Excel file, sheet "B1-d Storm Events history" (347 rows).

Location is the place NOAA recorded, as written in its data; it need not be a jurisdiction in this plan.

Local data needed: state-declared emergencies, from your state emergency management agency (federal data do not include them).

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

Supports FEMA checklist item B1-e: probability of future events

Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

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 Storm Events cold wave record, 1996 to 2025.
Drought	74.2	event-days per year	about 74.2 days per year	Possible (from Storm Events: 2 of 30 years)	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	
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	No descriptor (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 (from Storm Events: 7 of 30 years)	event-days in 7 of 30 years, 1996 to 2025 (23.3%)	118	2005-11-12 to 2024-11-12 (19 years)	countywide	
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 (from Storm Events: 18 of 30 years)	event-days in 18 of 30 years, 1996 to 2025 (60%)	52	1996 to 2023 (28 years)	see B1-f	

Hazard	FEMA annualized frequency (modeled)	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
	<i>unit per row</i>								
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	
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 (from Storm Events: 3 of 30 years)	Storm Events records in 3 of 30 years, 1996 to 2025 (10%)	not shown	modeled	see B1-f	Descriptor from Storm Events, not NRI.
Winter Weather	0.237	event-days per year	about 0.237 days per year	Possible (from Storm Events: 1 of 30 years)	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) is the National Risk Index v1.20 (December 2025) estimate of how often a hazard affects this county in a year; it is not recorded events divided by years, and its unit differs by hazard (events, event-days, or days with a lightning strike per year). For earthquake, wildfire, coastal flooding and tsunami the value is the chance (or number of events) at a location in the county, not across the county, so no "1 in N years" is given and the descriptor comes from Storm Events where it has a record (none for earthquake). The Methods page gives each hazard's method, from FEMA's National Risk Index Technical Documentation v1.20.

Where NRI gives event-days, the descriptor comes from the share of years with a Storm Events record; NRI's source records more events, so the two differ.

Descriptor scale used in this packet (defined per unit)

Sources: 5, 6

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

Intensity bands: historical frequency (Storm Events)

Source: 6

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
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	4	30	0.133
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	1	30	0.0333
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	0	30	0
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

The bands show how often events of each severity were recorded in this county, to profile how severe events have been (FEMA's probability item asks for the range of intensities).

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.

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 (<https://resilience.climate.gov/>).

Supports FEMA checklist item B1-f: hazards that vary across jurisdictions

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
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
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
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
Heat Wave	63 of 63	63.5	86.2	99.7	Very High 3, Relatively High 34, Relatively Moderate 26
Hurricane	0 of 63				Not Applicable 63
Ice Storm	0 of 63				Not Applicable 63
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
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
Strong Wind	63 of 63	10.0	15.1	50.5	Relatively Low 7, Very Low 56
Tornado	63 of 63	4.2	13.5	36.5	Relatively Low 1, Very Low 62
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

Drought: Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range mostly reflects where crop and livestock value is.

Hail: Agriculture is 74% of NRI's expected annual loss for this hazard in the county, so the tract range mostly reflects where crop and livestock value is.

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.

The score ranks a tract against all U.S. tracts (100 = highest). The rating is FEMA's category for the tract's risk value, computed differently, so the two can disagree.

Frequency data for drought, hail, heat wave, lightning, strong wind and winter weather are county-wide or coarse (49 km grid or NWS zone), the same for every jurisdiction; the tract range mostly reflects where buildings and people are (crop and livestock value where a line above names agriculture).

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
Merced County	County	Approved, expires 2027-05-20	FMA RL 3, SRL 2; any 17	\$6,917,467.86	0 total; 0 since its plan	
Atwater city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$35,337.38	7 total; 0 since its plan	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	no Public Assistance recorded	4 total; 1 since its plan	
Gustine city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$49,115.77	6 total; 2 since its plan	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 total; 1 since its plan	
Los Banos city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 0	\$7,519.33	10 total; 1 since its plan	Includes \$7,519.33 for declarations not counted as hazard incidents (DR-4482-CA).
Merced city	City	Approved, expires 2027-05-20	FMA RL 0, SRL 0; any 3	\$2,989,251.96	16 total; 0 since its plan	

Repetitive-loss counts are for whole NFIP communities, which can extend beyond this county (see the note in B2-c).

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

County Public Assistance in B1-d also includes applicants filed under the county that are not jurisdictions in this plan (for example state agencies, special districts and nonprofits), so the jurisdiction rows add up to less.

Supports FEMA checklist items B2-a and B2-b: vulnerability and potential impacts

Local data needed

The table below gives county-level starting figures; the plan describes impacts for each jurisdiction and its own assets.

- Critical facilities and lifelines per hazard
- A problem statement per jurisdiction 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

Sources: 1, 2, 3, 5, 6, 7

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>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, 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	n/a	under 1	\$0	n/a	\$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	n/a	\$1,557,916,889	n/a	n/a	\$70,182,596	n/a	4.5% (agriculture)		\$0		NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$103,548,459,452	n/a	281,202	\$45,419,229	n/a	\$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%				
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.
Landslide	\$16,733,663	n/a	34	\$393	n/a	\$1,127	0.00235%	\$0		\$10,012,083.43	
Lightning	\$57,579,932,987	n/a	281,054	\$48,781	n/a	\$690,034	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>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, 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
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); NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition.
Tornado	\$57,579,932,987	\$3,783,455,505	281,054	\$221,935	\$10,912	\$88,958	0.000385%				
Volcanic Activity	\$57,579,932,987	n/a	281,054	under \$1	n/a	\$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: \$10,012,083.43 on 4 counted declarations, 2 of them with Public Assistance.

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 does not add up to the total; the unit total counts each declaration once.

NRI computes earthquake exposure on its own basis, so it exceeds the county building value in B2-a.

Supports FEMA checklist item B2-a: vulnerability (county context)

County context

Source: 5

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 adds buildings, agriculture and population equivalence; this table gives the property part and the population-equivalence part as separate rows.

Social vulnerability: higher means people are more likely to be harmed and slower to recover. Community resilience: lower means the community is less able to recover. High social vulnerability and low resilience both raise the NRI risk rating.

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

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

The state NFIP coordinator's list, the source FEMA's Handbook names, often uses the NFIP insurance definition (second row).

Repeat-flood properties: county and state-level rows

Sources: 1, 4

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
of which: Merced County (unincorporated area)	3	2	17	2	17	0	12
of which: Merced city	0	0	3	0	3	0	2
Statewide, no county in FEMA's file	0	1	3	0	4	1	0

The statewide row counts properties FEMA's file gives with no county in this state; they are listed for reference and are not in this county's counts.

Repeat-flood properties by jurisdiction in the plan (NFIP community)

Sources: 1, 4

Jurisdiction	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>
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

Counts by occupancy group for each jurisdiction are in the Excel file, sheet "B2-c Jurisdictions".

Jurisdiction 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 jurisdiction row, while the county table counts only its part in this county.

County repeat-flood properties by occupancy group

Sources: 1, 4

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

FEMA's occupancy groups have no institutional class; institutional properties are counted in non-residential or other residential in the table by occupancy group.

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. NFIP repetitive loss (the FEMA insurance definition) is 2 or more claims over \$1,000 in 10 years, and a property can leave that group once it is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured. The Methods page gives the OpenFEMA field details.

Counts are aggregates of FEMA's public NFIP Multiple Loss Properties file (FEMA's data date 2026-08-02; file version 2026-08-04). No property is identified. County assignment is FEMA's geocode.

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

Tables cite these sources by number. The full list, for the plan's bibliography (FEMA review item A4-a):

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3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
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5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, 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 2026-09-30, <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 2026-09-30, <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 2026-09-30, 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 (used to match place names and codes; no table prints its values)

What this packet is and what the plan adds

This packet is the federal data for the plan's risk assessment, organized by the items of FEMA's Local Mitigation Plan Review Tool, Element B. Each section heading names the item its tables support; the plan and FEMA's review decide whether the item is met.

The plan adds what only the community has: local data on assets, critical facilities, development and each jurisdiction's impacts; local hazard history, including state-declared emergencies; the mitigation strategy; and adoption.

How the federal data are built: National Risk Index values are FEMA's model, not counts of events. Storm Events is more complete from 1996; zone-level records are placed by forecast zone, not by location in the county. Public Assistance for a jurisdiction is matched by applicant name. The Methods page gives every rule and the known edge cases.

OpenFEMA disclaimer

This product uses the Federal Emergency Management Agency's OpenFEMA API, but is not endorsed by FEMA. The Federal Government or FEMA cannot vouch for the data or analyses derived from these data after the data have been retrieved from the Agency's website(s).

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Corrections: to report an error, name the packet, the table and what your records show. Contact: contact@hazardplain.org

Hazard Plain release 2026-10. As of 2026-09-30; Storm Events data through 2026-06-30. Automated baseline.