

# Stanislaus County, CA

Risk-assessment baseline packet

County FIPS: 06099    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 2027-11-22. Plan: Stanislaus County (FEMA plan 108607), approved 2022-11-23.

Since the plan was approved on 2022-11-23: 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: 43 records (data through 2026-06-30).

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$94,239,441 a year), Earthquake (\$85,134,249) and Drought (\$71,086,133).

Repetitive-loss flood properties now: FMA RL 2, 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; 06099 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 2027-11-22 | Plan:           | Stanislaus County (FEMA plan 108607) |
| Approved: | 2022-11-23                   | Days to expiry: | 418                                  |

What changed since your last plan (approved 2022-11-23)

|                           |                                                                                                                                                                                                                                                                                                                                                  |                                      |                                       |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|---------------------------------------|
| 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: | 43 records (data through 2026-06-30)  |
| Repetitive loss now:      | FMA RL 2, 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: 14 rows, in the section "Plan clock: Plan status for every jurisdiction listed in this county" on the following pages.

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

## Plan clock

### Plan status for every jurisdiction listed in this county

Source: 1

| Jurisdiction                                | Type                   | Status                                                                    | Plan                                         | Approved   | Expires    | Days to expiry<br><i>negative = days since expiry</i> | Update underway                                       | Notes                                      |
|---------------------------------------------|------------------------|---------------------------------------------------------------------------|----------------------------------------------|------------|------------|-------------------------------------------------------|-------------------------------------------------------|--------------------------------------------|
| Stanislaus County                           | County                 | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-03-27      |
| Ceres city                                  | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-03-27      |
| Hughson city                                | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-03-27      |
| Modesto city                                | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-03-27      |
| Newman city                                 | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-01-13      |
| Oakdale city                                | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-03-27      |
| Patterson city                              | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-05-09      |
| Riverbank city                              | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       |                                            |
| Turlock city                                | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2025-01-16      |
| Waterford city                              | City                   | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-02-10      |
| Stanislaus Union Elementary School District | School/School District | Approved, expires 2027-11-22                                              | Stanislaus County (FEMA plan 108607)         | 2022-11-23 | 2027-11-22 | 418                                                   |                                                       | this jurisdiction approved 2023-04-05      |
| Del Puerto Water District                   | Water/Sewer Authority  | Expired on 2024-07-02                                                     | Del Puerto Water District (FEMA plan 105766) | 2019-07-03 | 2024-07-02 | -820                                                  |                                                       |                                            |
| Modesto Irrigation District                 | Special District       | No approved plan on record. Approvable pending adoption, not yet eligible | none                                         | none       | none       |                                                       | FEMA tracker shows a plan approvable pending adoption | Not yet eligible: adopt the approved plan. |
| Turlock Irrigation District                 | Flood Control District | No approved plan on record. Approvable pending adoption, not yet eligible | none                                         | none       | none       |                                                       | FEMA tracker shows a plan approvable pending adoption | Not yet eligible: adopt the approved plan. |

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<br>by<br>EAL | Hazard             | NRI risk<br>rating     | EAL rating             | EAL<br>buildings<br><i>modeled<br/>dollars per year</i> | EAL<br>agriculture<br><i>modeled<br/>dollars per year</i> | Cost of<br>expected deaths<br>and injuries<br><i>FEMA's dollar value<br/>per year, not<br/>property damage</i> | EAL total<br>(see note)<br><i>modeled<br/>dollars per year</i> | Storm Events<br>records, 1996 to<br>2026-06-30<br><i>count</i> | Why this hazard can be left out<br><i>NRI Not Applicable, no declaration and no<br/>Storm Events record since 1996</i> | Storm Events coverage note                                                                                                |
|-------------------|--------------------|------------------------|------------------------|---------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| 1                 | Inland<br>Flooding | Relatively<br>High     | Relatively<br>High     | \$93,974,905                                            | \$21,941                                                  | \$242,595                                                                                                      | \$94,239,441                                                   | 29                                                             |                                                                                                                        |                                                                                                                           |
| 2                 | Earthquake         | Relatively<br>High     | Relatively<br>High     | \$65,488,067                                            | n/a                                                       | \$19,646,182                                                                                                   | \$85,134,249                                                   |                                                                |                                                                                                                        | Storm Events does not record earthquakes.                                                                                 |
| 3                 | Drought            | Very High              | Very High              | n/a                                                     | \$71,086,133                                              | n/a                                                                                                            | \$71,086,133                                                   | 47                                                             |                                                                                                                        |                                                                                                                           |
| 4                 | Heat Wave          | Relatively<br>Moderate | Relatively<br>Moderate | \$5,009                                                 | \$931,753                                                 | \$7,346,711                                                                                                    | \$8,283,473                                                    | 52                                                             |                                                                                                                        |                                                                                                                           |
| 5                 | Wildfire           | Relatively<br>Moderate | Relatively<br>Moderate | \$3,411,617                                             | \$20,338                                                  | \$278,382                                                                                                      | \$3,710,337                                                    | 5                                                              |                                                                                                                        |                                                                                                                           |
| 6                 | Lightning          | Relatively<br>High     | Relatively<br>High     | \$54,327                                                | n/a                                                       | \$1,274,545                                                                                                    | \$1,328,873                                                    | 3                                                              |                                                                                                                        |                                                                                                                           |
| 7                 | Tornado            | Relatively<br>Low      | Relatively<br>Low      | \$302,999                                               | \$10,061                                                  | \$149,073                                                                                                      | \$462,133                                                      | 8                                                              |                                                                                                                        |                                                                                                                           |
| 8                 | Hail               | Relatively<br>Low      | Relatively<br>Low      | \$54,155                                                | \$132,337                                                 | \$111,751                                                                                                      | \$298,243                                                      | 4                                                              |                                                                                                                        |                                                                                                                           |
| 9                 | Strong<br>Wind     | Relatively<br>Low      | Relatively<br>Low      | \$106,109                                               | \$11,406                                                  | \$168,531                                                                                                      | \$286,046                                                      | 38                                                             |                                                                                                                        | Includes 22 High Wind and 9 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition). |
| 10                | Winter<br>Weather  | Relatively<br>Low      | Relatively<br>Low      | \$2,010                                                 | under \$1                                                 | \$39,380                                                                                                       | \$41,390                                                       | 2                                                              |                                                                                                                        |                                                                                                                           |

| Rank<br>by<br>EAL | Hazard               | NRI risk<br>rating | EAL rating                      | EAL<br>buildings<br>modeled<br>dollars per year | EAL<br>agriculture<br>modeled<br>dollars per year | Cost of<br>expected deaths<br>and injuries<br>FEMA's dollar value<br>per year, not<br>property damage | EAL total<br>(see note)<br>modeled<br>dollars per year | Storm Events<br>records, 1996 to<br>2026-06-30<br>count | Why this hazard can be left out<br><i>NRI Not Applicable, no declaration and no<br/>Storm Events record since 1996</i>                                                                                   | Storm Events coverage note                                                                                                                       |
|-------------------|----------------------|--------------------|---------------------------------|-------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 11                | Landslide            | Relatively<br>Low  | Relatively<br>Low               | \$9,355                                         | n/a                                               | \$30,096                                                                                              | \$39,451                                               | 0                                                       |                                                                                                                                                                                                          | Declared 7 times; no Storm<br>Events record of this type.                                                                                        |
| 12                | Volcanic<br>Activity | Very Low           | Very Low                        | \$1                                             | n/a                                               | \$315                                                                                                 | \$316                                                  | 0                                                       |                                                                                                                                                                                                          | No recorded events in Storm<br>Events since 1996 (data through<br>2026-06-30).                                                                   |
| 13                | Avalanche            | Very Low           | Very Low                        | under \$1                                       | n/a                                               | \$2                                                                                                   | \$3                                                    | 0                                                       |                                                                                                                                                                                                          | No recorded events in Storm<br>Events since 1996 (data through<br>2026-06-30).                                                                   |
| 14                | Cold Wave            | No Rating          | No Expected<br>Annual<br>Losses | \$0                                             | \$0                                               | \$0                                                                                                   | \$0                                                    | 26                                                      |                                                                                                                                                                                                          | Includes 9 Frost/Freeze records<br>(outside NRI's Cold Wave<br>definition; counted in this table<br>and in B1-d, not in the B1-e<br>descriptor). |
|                   | Coastal<br>Flooding  | Not<br>Applicable  | Not<br>Applicable               |                                                 |                                                   |                                                                                                       |                                                        | 0                                                       |                                                                                                                                                                                                          | Declared 1 time; no Storm<br>Events record of this type.                                                                                         |
|                   | Hurricane            | Not<br>Applicable  | Not<br>Applicable               |                                                 |                                                   |                                                                                                       |                                                        | 0                                                       | NRI rates hurricane Not Applicable for<br>this county, and no counted federal<br>declaration for this county names it<br>(EM-3248-CA names it but is not<br>counted as a local occurrence; see<br>B1-d). | No recorded events in Storm<br>Events since 1996 (data through<br>2026-06-30).                                                                   |
|                   | Ice Storm            | Not<br>Applicable  | Not<br>Applicable               |                                                 |                                                   |                                                                                                       |                                                        | 0                                                       |                                                                                                                                                                                                          | Declared 1 time; no Storm<br>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 landslide and volcanic activity records (Storm Events records these hazards 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<br><i>NRI risk rating, score 0 to 100</i>                                         |
|-------------------|---------------------------------------------------------------------------------------------------------------|
| Avalanche         | tract 34 (Very Low, 2.4); tract 33 (Very Low, 1.8)                                                            |
| Coastal Flooding  | no tract has a National Risk Index rating for this hazard                                                     |
| Earthquake        | tract 18 (Very High, 99.3); tract 20.02 (Very High, 98.9); tract 21 (Very High, 98.2)                         |
| Hurricane         | no tract has a National Risk Index rating for this hazard                                                     |
| Landslide         | tract 34 (Relatively Moderate, 99.0); tract 33 (Relatively Moderate, 98.4); tract 1.01 (Relatively Low, 93.8) |
| Tornado           | tract 21 (Very Low, 26.2); tract 20.02 (Very Low, 25.7); tract 39.07 (Very Low, 24.7)                         |
| Volcanic Activity | tract 9.10 (Very Low, 81.2); tract 3.03 (Very Low, 81.1); tract 10.01 (Very Low, 80.9)                        |
| Wildfire          | tract 1.01 (Relatively High, 98.9); tract 33 (Relatively High, 98.9); tract 34 (Relatively High, 98.3)        |

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 34 is Census Tract 34). 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<br><i>count and years</i>        | Observed range                                                 | Worst recorded event                                                                                                     | Most damaging<br>(when different)                                                              | How it applies to jurisdictions                                                                    | Note                                                                                                                                                                                    |
|---------------------------------------------------|---------------------------------------|------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche                                         | none (count and damage only)          | 0                                        |                                                                |                                                                                                                          |                                                                                                |                                                                                                    | 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                            | 17 records, 1998 to 2024 (17 zone-level) | 1 day to 4 days (median 1 day); 9 with a recorded value        | 4 consecutive days, 2023-11-24 to 2023-11-27, zone-level                                                                 |                                                                                                | Countywide (zone-level records).                                                                   | Wind chill: in event narratives only (local data needed). Cold/ Wind Chill records from May to September (a frost night, not a cold wave) are counted but not used for the longest run. |
| Frost/Freeze (outside NRI's Cold Wave definition) | crop damage                           | 9 records, 2005 to 2024 (9 zone-level)   |                                                                | Frost/Freeze, 2007-01-14, \$20,000,000 crop damage (2007 dollars); NWS zone CAZ019                                       |                                                                                                | Countywide (zone-level records).                                                                   | Temperature: in event narratives only (local data needed).                                                                                                                              |
| Drought                                           | U.S. Drought Monitor scale (D0 to D4) | 47 records, 2014 to 2023 (47 zone-level) | 31 days to 460 days (median 118 days); 9 with a recorded value | 460 days (about 15.1 months), 2021-10-08 to 2023-01-10, a run of 16 consecutive Storm Events drought records, zone-level | Drought, 2014-12-01, \$0 property; \$1,500,000,000 crops, reported for the zone (2014 dollars) | 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)                    | 4 records, 1996 to 2016                  | 0.5 in to 0.75 in (median 0.62 in); 2 with a recorded value    | 0.75 in hail, 1996-03-11                                                                                                 | Hail, 2005-05-09, \$5,000 property; crops not reported (2005 dollars)                          | Event records naming jurisdictions in the plan: Oakdale city (2 records), Turlock city (1 record). |                                                                                                                                                                                         |

| Hazard                                                           | Scale                                                                              | Records<br><i>count and years</i>        | Observed range                                                                     | Worst recorded event                                                                  | Most damaging<br>(when different)                                                                     | How it applies to jurisdictions                                                                                                                                                              | Note                                                                                                                                                                                                          |
|------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Excessive Heat, Heat                                             | heat index (in event narratives)                                                   | 52 records, 1999 to 2024 (52 zone-level) | 1 day to 12 days (median 2.5 days); 34 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)                                          | 29 records, 1996 to 2026 (8 zone-level)  |                                                                                    | Flood, 2006-04-14, \$250,000 property; \$0 crops (2006 dollars)                       |                                                                                                       | Event records naming jurisdictions in the plan: Modesto city (3 records), Ceres city (1 record), Newman city (1 record), Riverbank city (1 record). Zone-level records (8) apply countywide. | 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. |
| Debris Flow                                                      | none (count and damage only)                                                       | 0                                        |                                                                                    |                                                                                       |                                                                                                       |                                                                                                                                                                                              | Physical measure: in event narratives only (local data needed).                                                                                                                                               |
| Lightning                                                        | annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names) | 3 records, 1999 to 2018                  |                                                                                    | Lightning, 2017-03-21, \$200,000 property; \$0 crops (2017 dollars)                   |                                                                                                       | Event records naming jurisdictions in the plan: Oakdale city (2 records).                                                                                                                    | 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)                                                            | 31 records, 1996 to 2025 (31 zone-level) | 30 kt (35 mph) to 66 kt (76 mph) (median 44 kt (51 mph)); 29 with a recorded value | 66 kt (76 mph), measurement type not recorded, High Wind, 1996-04-11; NWS zone CAZ019 | High Wind, 2008-01-04, \$4,408,000 property; crops not reported, reported for the zone (2008 dollars) | Countywide (zone-level records).                                                                                                                                                             |                                                                                                                                                                                                               |

| Hazard                                                                                      | Scale                                             | Records<br><i>count and years</i>            | Observed range                                                                              | Worst recorded event                                                                                   | Most damaging<br>(when different)                                                  | How it applies to jurisdictions                                                                                                                             | Note                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------------------|---------------------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thunderstorm<br>Wind                                                                        | wind speed (kt<br>and mph)                        | 9 records,<br>1980 to 2025                   | 36 kt (41 mph) to 87<br>kt (100 mph) (median<br>47 kt (54 mph)); 8<br>with a recorded value | 87 kt (100 mph) estimated<br>gust, Thunderstorm Wind,<br>2015-12-24                                    |                                                                                    | Event records naming jurisdictions in the plan: Oakdale city<br>(2 records).                                                                                |                                                                                                                                                                                                                                                 |
| Tornado                                                                                     | Enhanced<br>Fujita (Fujita<br>before Feb<br>2007) | 13 records,<br>1953 to 2025                  | F/EF0 to F/EF2<br>(median F/EF1); 11<br>with a recorded value                               | F2 tornado, 1953-04-27,<br>33 yd wide, \$2,500<br>property; crops not<br>recorded (1953 dollars)       | Tornado, 2015-11-15,<br>\$1,000,000 property;<br>\$200,000 crops (2015<br>dollars) | Event records naming jurisdictions in the plan: Modesto city<br>(2 records), Newman city (1 record), Oakdale city (1 record),<br>Waterford city (1 record). | Before 1996 a tornado<br>is listed once, under the<br>county where it began,<br>with its whole path's<br>rating and length; from<br>1996 on, each county<br>lists its own segment.<br>Length is not used to<br>rank tornadoes (see<br>Methods). |
| Volcanic Ash,<br>Volcanic<br>Ashfall                                                        | Volcanic<br>Explosivity<br>Index (local<br>data)  | 0                                            |                                                                                             |                                                                                                        |                                                                                    |                                                                                                                                                             | Physical measure: in<br>event narratives only<br>(local data needed).                                                                                                                                                                           |
| Wildfire                                                                                    | acres burned<br>(local data)                      | 5 records,<br>2019 to 2025<br>(5 zone-level) |                                                                                             | Wildfire, 2025-09-02,<br>\$25,000,000 property;<br>\$5,000 crops (2025<br>dollars); NWS zone<br>CAZ019 |                                                                                    | Countywide (zone-level records).                                                                                                                            | Acres burned: in event<br>narratives only (local<br>data needed).                                                                                                                                                                               |
| Winter Storm,<br>Heavy Snow,<br>Blizzard, Lake-<br>Effect Snow,<br>Winter<br>Weather, Sleet | none in data<br>(snowfall: local<br>data)         | 2 records,<br>1996 to 2009<br>(2 zone-level) |                                                                                             | No damage reported in 2<br>records.                                                                    |                                                                                    | Countywide (zone-level records).                                                                                                                            | Snow depth: in event<br>narratives only (local<br>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: 20 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<br><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    | \$4,024,473.69                                                              | 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 | \$7,009,136.33                                                              | 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 |
| 2020-08-22 | 2020-08-14     | DR-4558-CA  | Major disaster  | Wildfires                                                                      | Wildfire                                                              | \$1,258,484.88                                                              |                                          |                          |
| 2020-08-21 | 2020-08-20     | FM-5338-CA  | Fire management | Scu Lightning Complex Fire                                                     | Wildfire                                                              | no Public Assistance recorded                                               |                                          | same incident as DR-4558 |
| 2020-03-22 | 2020-01-20     | DR-4482-CA  | Major disaster  | COVID-19 Pandemic                                                              | Non-natural, not counted                                              | \$9,215,524.31                                                              |                                          |                          |
| 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 | \$5,228,276.85                                                              |                                          |                          |
| 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                                            | \$734,150.95                                                                |                                          |                          |
| 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                                               |                                          |                          |
| 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                                               |                                          |                          |
| 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                                             |                                          |                          |

| Declared   | Incident began | FEMA number | Type           | Title                                      | Mapped hazard                                         | County Public Assistance                        | Flags | Notes |
|------------|----------------|-------------|----------------|--------------------------------------------|-------------------------------------------------------|-------------------------------------------------|-------|-------|
|            |                |             |                |                                            |                                                       | <i>federal share obligated, nominal dollars</i> |       |       |
| 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                   |       |       |
| 1964-12-24 | 1964-12-24     | DR-183-CA   | Major disaster | Heavy Rains & Flooding                     | Inland Flooding                                       | no Public Assistance recorded                   |       |       |

School districts and special districts in this county: \$12,019,846.62 (included in the county total above). Public Assistance matched by applicant name to the school districts and special districts FEMA lists as plan participants in this county. They have no row of their own in the jurisdiction table, so their total is listed here. These dollars are already included in the county PA column of the declarations table (the FEMA record places each applicant in this county), so this line is not added to it.

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

| <b>Hazard</b>     | <b>Storm Events records,<br/>all years on file<br/><i>(years in the Period column)</i></b> | <b>Since plan<br/>approval<br/><i>records</i></b> | <b>In the 12 months before<br/>plan approval<br/><i>records</i></b> | <b>Last 5<br/>years<br/><i>records</i></b> | <b>Declared incidents,<br/>all years<br/><i>separate disasters</i></b> | <b>Declared since<br/>approval<br/><i>separate disasters</i></b> | <b>Period</b>      | <b>Statement</b>                                                                            |
|-------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------|
| Avalanche         | 0                                                                                          | 0                                                 | 0                                                                   | 0                                          | 0                                                                      | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                              |
| 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         | 26                                                                                         | 5                                                 | 1                                                                   | 6                                          | 2                                                                      | 0                                                                | 1996 to 2026-06-30 | Includes 9 Frost/Freeze records.                                                            |
| Drought           | 47                                                                                         | 2                                                 | 12                                                                  | 16                                         | 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              | 4                                                                                          | 0                                                 | 0                                                                   | 0                                          | 0                                                                      | 0                                                                | 1955 to 2026-06-30 |                                                                                             |
| Heat Wave         | 52                                                                                         | 6                                                 | 3                                                                   | 9                                          | 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   | 29                                                                                         | 17                                                | 0                                                                   | 17                                         | 10                                                                     | 2                                                                | 1996 to 2026-06-30 |                                                                                             |
| Landslide         | 0                                                                                          | 0                                                 | 0                                                                   | 0                                          | 7                                                                      | 2                                                                | 1996 to 2026-06-30 | No Storm Events records of this type; 7 federal declared incidents (see declarations table) |
| Lightning         | 3                                                                                          | 0                                                 | 0                                                                   | 0                                          | 0                                                                      | 0                                                                | 1996 to 2026-06-30 |                                                                                             |
| Strong Wind       | 40                                                                                         | 11                                                | 1                                                                   | 13                                         | 1                                                                      | 1                                                                | 1955 to 2026-06-30 | Includes 22 High Wind and 9 Strong Wind records.                                            |
| Tornado           | 13                                                                                         | 1                                                 | 0                                                                   | 1                                          | 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          | 5                                                                                          | 1                                                 | 0                                                                   | 1                                          | 1                                                                      | 0                                                                | 1996 to 2026-06-30 |                                                                                             |
| Winter Weather    | 2                                                                                          | 0                                                 | 0                                                                   | 0                                          | 5                                                                      | 2                                                                | 1996 to 2026-06-30 |                                                                                             |

Notable Storm Events records

Sources: 1, 6, 7

| Date       | Event type        | Magnitude or extent                           | Damage<br><i>nominal dollars</i>                                             | Deaths,<br>injuries<br><i>direct only</i> | Location                                                  | Flags                                    | Why listed                                               |
|------------|-------------------|-----------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------|-----------------------------------------------------------|------------------------------------------|----------------------------------------------------------|
| 2025-09-02 | Wildfire          |                                               | \$25,000,000 property; \$5,000 crops, reported for the zone (2025 dollars)   | 0, 0                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level | new since last plan; within last 5 years | B1-c worst recorded: Wildfire                            |
| 2024-08-06 | Cold/Wind Chill   |                                               | \$0 property; \$0 crops, reported for the zone (2024 dollars)                | 1, 0                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level | new since last plan; within last 5 years | deaths or injuries recorded                              |
| 2024-07-02 | Excessive Heat    |                                               | \$0 property; \$0 crops, reported for the zone (2024 dollars)                | 0, 0                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level | new since last plan; within last 5 years | B1-c worst recorded: Excessive Heat, Heat                |
| 2021-10-08 | Drought           |                                               | \$0 property; \$0 crops, reported for the zone (2021 dollars)                | 0, 0                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level | within last 5 years                      | B1-c worst recorded: Drought                             |
| 2017-03-21 | Lightning         |                                               | \$200,000 property; \$0 crops (2017 dollars)                                 | 0, 0                                      | OAKDALE                                                   |                                          | B1-c worst recorded: Lightning                           |
| 2015-12-24 | Thunderstorm Wind | 87 kt (100 mph) estimated gust                | \$150,000 property; \$0 crops (2015 dollars)                                 | 0, 0                                      | NORTHEAST MODESTO                                         |                                          | B1-c worst recorded: Thunderstorm Wind                   |
| 2013-10-27 | Strong Wind       | 43 kt (49 mph) measured gust                  | damage not reported                                                          | 2, 2                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level |                                          | deaths or injuries recorded                              |
| 2006-04-14 | Flood             |                                               | \$250,000 property; \$0 crops (2006 dollars)                                 | 0, 0                                      | MODESTO                                                   |                                          | B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood |
| 2006-01-01 | Flood             |                                               | \$100,000 property; crops not reported (2006 dollars)                        | 1, 1                                      | COUNTYWIDE                                                |                                          | deaths or injuries recorded                              |
| 1996-04-11 | High Wind         | 66 kt (76 mph), measurement type not recorded | \$150,000 property; crops not reported, reported for the zone (1996 dollars) | 0, 0                                      | NWS zone CAZ019 (NORTHERN SAN JOAQUIN VALLEY), zone-level |                                          | B1-c worst recorded: High Wind and Strong Wind           |
| 1996-03-11 | Hail              | 0.75 in                                       | damage not reported                                                          | 0, 0                                      | OAKDALE                                                   |                                          | B1-c worst recorded: Hail                                |
| 1953-04-27 | Tornado           | F2, 33 yd wide                                | \$2,500 property; crops not recorded (1953 dollars)                          | 0, 0                                      | location not recorded                                     |                                          | B1-c worst recorded: Tornado                             |

The full list is in the Excel file, sheet "B1-d Storm Events history" (221 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)<br><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                                                                             | Likely (from Storm Events: 8 of 30 years)  | event-days in 8 of 30 years, 1996 to 2025 (26.7%)  | 0                                                                                                        | 2005-11-12 to 2024-11-12 (19 years)             | countywide | NRI models no cold wave event-days here (2005-11-12 to 2024-11-12, 19 years); Storm Events has a record in 8 of 30 years. The descriptor comes from Storm Events, which records events NRI's definition leaves out. |
| Drought          | 73.6                                                       | event-days per year                     | about 73.6 days per year                                                                 | Likely (from Storm Events: 7 of 30 years)  | event-days in 7 of 30 years, 1996 to 2025 (23.3%)  | 2,226                                                                                                    | 2000 to 2025 (25.25 years; D3 and D4 only)      | countywide |                                                                                                                                                                                                                     |
| Earthquake       | 0.0695                                                     | annual probability at a location        | chance a given location in the county has at least minor-damage shaking in a year: 6.95% |                                            |                                                    | not shown                                                                                                | modeled                                         | see B1-f   | No descriptor (Storm Events does not record earthquakes).                                                                                                                                                           |
| Hail             | 0.089                                                      | events per year                         | about 1 in 11 years                                                                      | Possible                                   | FEMA annualized frequency (modeled)                | 3.4 (modeled)                                                                                            | 1986 to 2023 (38 years)                         | countywide |                                                                                                                                                                                                                     |
| Heat Wave        | 7.18                                                       | event-days per year                     | about 7.18 days per year                                                                 | Likely (from Storm Events: 11 of 30 years) | event-days in 11 of 30 years, 1996 to 2025 (36.7%) | 83.4                                                                                                     | 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.                                                                                                                                                               |

| Hazard            | FEMA annualized frequency (modeled)<br><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                                   |
|-------------------|------------------------------------------------------------|----------------------------------|---------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------|------------|----------------------------------------|
| Inland Flooding   | 0.571                                                      | event-days per year              | about 0.571 days per year                                     | Likely (from Storm Events: 10 of 30 years)  | event-days in 10 of 30 years, 1996 to 2025 (33.3%)        | 16                                                                                                       | 1996 to 2023 (28 years)                   | see B1-f   |                                        |
| Landslide         | 18.2                                                       | events per year (modeled)        | about 18.2 per year                                           | Highly likely                               | FEMA annualized frequency (modeled)                       | not shown                                                                                                | modeled                                   | see B1-f   |                                        |
| Lightning         | 6.95                                                       | days per year with a strike      | about 6.95 days per year                                      | Highly likely                               | FEMA annualized frequency (modeled)                       | not shown                                                                                                | 1995 to 2023 (29 years; CONUS)            | countywide |                                        |
| Strong Wind       | 0.0422                                                     | events per year                  | about 1 in 24 years                                           | Possible                                    | FEMA annualized frequency (modeled)                       | 2                                                                                                        | 1986 to 2023 (38 years)                   | countywide |                                        |
| Tornado           | 0.175                                                      | events per year                  | about 1 in 6 years                                            | Likely                                      | FEMA annualized frequency (modeled)                       | not shown                                                                                                | 1950 to 2023 (EF2+); 1986 to 2023 (EF0-1) | see B1-f   |                                        |
| Volcanic Activity | 0.0003                                                     | annual probability               | about 1 in 3,333 years                                        | Unlikely                                    | FEMA annualized frequency (modeled)                       | not shown                                                                                                | modeled                                   | see B1-f   |                                        |
| Wildfire          | 0.00597                                                    | annual probability at a location | chance a given location in the county burns in a year: 0.597% | 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    | 0.217                                                      | event-days per year              | about 0.217 days per year                                     | Possible (from Storm Events: 2 of 30 years) | event-days in 2 of 30 years, 1996 to 2025 (6.67%)         | 4.13                                                                                                     | 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<br><i>county-coded records</i> | Years in period | Events per year<br><i>events / years</i> |
|------------------------------------------------|---------------------------|--------------|---------------------------------------|-----------------|------------------------------------------|
| Hail                                           | 1.00-1.99 in              | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Hail                                           | 2.00 in+                  | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Thunderstorm Wind (counted as NRI Strong Wind) | 50-64 kt                  | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| Thunderstorm Wind (counted as NRI Strong Wind) | 65 kt+                    | 1996 to 2025 | 2                                     | 30              | 0.0667                                   |
| Thunderstorm Wind (counted as NRI Strong Wind) | unmeasured or below 50 kt | 1996 to 2025 | 4                                     | 30              | 0.133                                    |
| Tornado                                        | EF0-1                     | 1996 to 2025 | 8                                     | 30              | 0.267                                    |
| 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<br><i>rated of all</i> | NRI risk score, 0 to 100 |        |       | Tracts by rating                                                                                       |
|-------------------|-------------------------------|--------------------------|--------|-------|--------------------------------------------------------------------------------------------------------|
|                   |                               | Min                      | Median | Max   |                                                                                                        |
| Avalanche         | 2 of 112                      | 1.8                      | 2.1    | 2.4   | Very Low 2, Not Applicable 110                                                                         |
| Coastal Flooding  | 0 of 112                      |                          |        |       | Not Applicable 112                                                                                     |
| Cold Wave         | 0 of 112                      |                          |        |       | No Rating 112                                                                                          |
| Drought           | 80 of 112                     | 68.2                     | 91.6   | 100.0 | Very High 11, Relatively High 11, Relatively Moderate 18, Relatively Low 30, Very Low 10, No Rating 32 |
| Earthquake        | 112 of 112                    | 76.8                     | 87.0   | 99.3  | Very High 5, Relatively High 37, Relatively Moderate 69, Relatively Low 1                              |
| Hail              | 112 of 112                    | 16.1                     | 25.9   | 71.6  | Relatively Moderate 2, Relatively Low 12, Very Low 98                                                  |
| Heat Wave         | 112 of 112                    | 37.3                     | 68.4   | 93.3  | Relatively High 8, Relatively Moderate 88, Relatively Low 16                                           |
| Hurricane         | 0 of 112                      |                          |        |       | Not Applicable 112                                                                                     |
| Ice Storm         | 0 of 112                      |                          |        |       | Not Applicable 112                                                                                     |
| Inland Flooding   | 112 of 112                    | 10.7                     | 55.7   | 99.4  | Very High 4, Relatively High 20, Relatively Moderate 52, Relatively Low 31, Very Low 5                 |
| Landslide         | 54 of 112                     | 9.1                      | 26.6   | 99.0  | Relatively Moderate 2, Relatively Low 4, Very Low 48, No Rating 58                                     |
| Lightning         | 112 of 112                    | 18.8                     | 49.7   | 79.2  | Relatively High 1, Relatively Moderate 57, Relatively Low 53, Very Low 1                               |
| Strong Wind       | 112 of 112                    | 10.3                     | 15.1   | 28.6  | Relatively Low 13, Very Low 99                                                                         |
| Tornado           | 112 of 112                    | 3.6                      | 8.5    | 26.2  | Very Low 112                                                                                           |
| Volcanic Activity | 110 of 112                    | 53.0                     | 77.6   | 81.2  | Very Low 110, No Rating 2                                                                              |
| Wildfire          | 69 of 112                     | 18.8                     | 61.7   | 98.9  | Relatively High 5, Relatively Moderate 5, Relatively Low 22, Very Low 37, No Rating 43                 |
| Winter Weather    | 112 of 112                    | 17.6                     | 21.9   | 31.1  | Relatively Low 106, Very Low 6                                                                         |

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.

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

| <b>Jurisdiction</b> | <b>Type</b> | <b>Plan status</b>           | <b>Repetitive loss</b><br><i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i> | <b>Public Assistance to this jurisdiction</b><br><i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i> | <b>Event records naming this place</b><br><i>all years; since its plan</i> | <b>Notes</b>                                                                           |
|---------------------|-------------|------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| Stanislaus County   | County      | Approved, expires 2027-11-22 | FMA RL 2, SRL 1; any 7                                                                      | \$9,885,503.05                                                                                                                           | 0 total; 0 since its plan                                                  | Includes \$8,177,820.40 for declarations not counted as hazard incidents (DR-4482-CA). |
| Ceres city          | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$31,231.92                                                                                                                              | 1 total; 1 since its plan                                                  |                                                                                        |
| Hughson city        | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$325,347.75                                                                                                                             | 0 total; 0 since its plan                                                  |                                                                                        |
| Modesto city        | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 1; any 6                                                                      | \$2,710,747.75                                                                                                                           | 5 total; 1 since its plan                                                  | Includes \$79,991.97 for declarations not counted as hazard incidents (DR-4482-CA).    |
| Newman city         | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 3                                                                      | \$50,036.30                                                                                                                              | 2 total; 0 since its plan                                                  |                                                                                        |
| Oakdale city        | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$8,677.18                                                                                                                               | 7 total; 2 since its plan                                                  |                                                                                        |
| Patterson city      | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 4                                                                      | \$100,123.46                                                                                                                             | 0 total; 0 since its plan                                                  | Includes \$66,741.34 for declarations not counted as hazard incidents (DR-4482-CA).    |
| Riverbank city      | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$39,957.29                                                                                                                              | 1 total; 1 since its plan                                                  |                                                                                        |
| Turlock city        | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$363,669.17                                                                                                                             | 1 total; 0 since its plan                                                  | Includes \$330,560.41 for declarations not counted as hazard incidents (DR-4482-CA).   |
| Waterford city      | City        | Approved, expires 2027-11-22 | FMA RL 0, SRL 0; any 0                                                                      | \$758,400                                                                                                                                | 1 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<br><i>modeled dollars</i> | Agriculture exposure<br><i>modeled dollars</i> | Population exposed<br><i>people</i> | EAL buildings<br><i>modeled dollars per year</i> | EAL agriculture<br><i>modeled dollars per year</i> | Cost of expected deaths and injuries<br><i>FEMA's dollar value per year, not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2022-11-23<br><i>county-coded records, property plus crops, nominal dollars</i> | Zone-level damage since plan<br><i>property plus crops, reported for the zone</i> | Public Assistance since plan<br><i>nominal dollars; see note</i> | Note                                                                                                                                                                      |
|------------------|---------------------------------------------|------------------------------------------------|-------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche        | \$278,409                                   | n/a                                            | under 1                             | under \$1                                        | n/a                                                | \$2                                                                                              | 0.000105%                                                         |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                           |
| 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                                         | \$1,591,488,716                                | n/a                                 | n/a                                              | \$71,086,133                                       | n/a                                                                                              | 4.47% (agriculture)                                               |                                                                                                           | \$0                                                                               |                                                                  | NRI has no building exposure for this hazard; agriculture shown                                                                                                           |
| Earthquake       | \$197,711,999,861                           | n/a                                            | 552,878                             | \$65,488,067                                     | n/a                                                | \$19,646,182                                                                                     | 0.0331%                                                           |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                           |
| Hail             | \$112,761,803,915                           | \$3,252,835,392                                | 552,683                             | \$54,155                                         | \$132,337                                          | \$111,751                                                                                        | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                           |
| Heat Wave        | \$112,761,803,915                           | \$3,252,835,392                                | 552,683                             | \$5,009                                          | \$931,753                                          | \$7,346,711                                                                                      | under 0.0001%                                                     |                                                                                                           | \$0                                                                               |                                                                  |                                                                                                                                                                           |
| Hurricane        |                                             |                                                |                                     |                                                  |                                                    |                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county                                                                                                                                     |
| Ice Storm        |                                             |                                                |                                     |                                                  |                                                    |                                                                                                  |                                                                   |                                                                                                           |                                                                                   | \$4,024,473.69                                                   | Not Applicable in NRI for this county                                                                                                                                     |
| Inland Flooding  | \$112,742,969,238                           | \$292,151,311                                  | 9,216                               | \$93,974,905                                     | \$21,941                                           | \$242,595                                                                                        | n/a (see note)                                                    | \$0                                                                                                       |                                                                                   | \$11,033,610.02                                                  | 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        | \$326,274,931                               | n/a                                            | 876                                 | \$9,355                                          | n/a                                                | \$30,096                                                                                         | 0.00287%                                                          |                                                                                                           |                                                                                   | \$11,033,610.02                                                  |                                                                                                                                                                           |

| <b>Hazard</b>     | <b>Building exposure</b><br><i>modeled dollars</i> | <b>Agriculture exposure</b><br><i>modeled dollars</i> | <b>Population exposed</b><br><i>people</i> | <b>EAL buildings</b><br><i>modeled dollars per year</i> | <b>EAL agriculture</b><br><i>modeled dollars per year</i> | <b>Cost of expected deaths and injuries</b><br><i>FEMA's dollar value per year; not property damage</i> | <b>EAL as % of exposure</b><br><i>buildings; agriculture where noted</i> | <b>Storm Events damage since 2022-11-23</b><br><i>county-coded records, property plus crops, nominal dollars</i> | <b>Zone-level damage since plan</b><br><i>property plus crops, reported for the zone</i> | <b>Public Assistance since plan</b><br><i>nominal dollars; see note</i> | <b>Note</b>                                                                                                                                                                                                     |
|-------------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lightning         | \$112,761,803,915                                  | n/a                                                   | 552,683                                    | \$54,327                                                | n/a                                                       | \$1,274,545                                                                                             | under 0.0001%                                                            |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                                 |
| Strong Wind       | \$112,761,803,915                                  | \$3,252,835,392                                       | 552,683                                    | \$106,109                                               | \$11,406                                                  | \$168,531                                                                                               | under 0.0001%                                                            | \$14,000                                                                                                         | \$561,000                                                                                | \$4,024,473.69                                                          | Storm Events damage since the plan includes 2 zone-level High Wind records (\$11,000) and 2 zone-level Strong Wind records (\$550,000): NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition. |
| Tornado           | \$112,761,803,915                                  | \$3,252,835,392                                       | 552,683                                    | \$302,999                                               | \$10,061                                                  | \$149,073                                                                                               | 0.000269%                                                                | \$20,000                                                                                                         |                                                                                          |                                                                         |                                                                                                                                                                                                                 |
| Volcanic Activity | \$112,761,803,915                                  | n/a                                                   | 552,683                                    | \$1                                                     | n/a                                                       | \$315                                                                                                   | under 0.0001%                                                            |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                                 |
| Wildfire          | \$1,425,479,003                                    | \$1,100,585,879                                       | 20,789                                     | \$3,411,617                                             | \$20,338                                                  | \$278,382                                                                                               | 0.239%                                                                   |                                                                                                                  | \$25,005,000                                                                             |                                                                         |                                                                                                                                                                                                                 |
| Winter Weather    | \$112,761,803,915                                  | \$3,252,835,392                                       | 552,683                                    | \$2,010                                                 | under \$1                                                 | \$39,380                                                                                                | under 0.0001%                                                            |                                                                                                                  |                                                                                          | \$11,033,610.02                                                         |                                                                                                                                                                                                                 |

Totals since 2022-11-23 (Storm Events through 2026-06-30): 24 county-coded records, 23 with a damage value recorded (including \$0), \$34,000; 19 zone-level records, 19 with a damage value recorded (including \$0), \$25,566,000 reported for the zone; Public Assistance: \$11,033,610.02 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                                                                                                                                                                    | 552,683           |
| Building value (total, not at risk)                                                                                                                                           | \$112,761,803,915 |
| Agriculture value (total, not at risk)                                                                                                                                        | \$3,252,835,392   |
| NRI risk rating (all hazards)                                                                                                                                                 | Relatively High   |
| Expected annual loss, buildings and agriculture, all hazards                                                                                                                  | \$235,622,523     |
| 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) | \$29,287,563      |
| Social vulnerability rating                                                                                                                                                   | Relatively Low    |
| Community resilience rating                                                                                                                                                   | Relatively 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) | 2          | Severe repetitive loss, FMA definition (44 CFR 77.2) | 2          |
| Repetitive loss, NFIP insurance definition    | 19         | 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

| <b>Scope</b>                                      | <b>RL, FMA</b><br><i>properties</i> | <b>SRL, FMA</b><br><i>properties</i> | <b>RL, NFIP</b><br><i>properties</i> | <b>SRL, NFIP</b><br><i>properties</i> | <b>Any category</b><br><i>properties</i> | <b>Mitigated</b><br><i>properties</i> | <b>Currently insured</b><br><i>properties</i> |
|---------------------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|------------------------------------------|---------------------------------------|-----------------------------------------------|
| County total                                      | 2                                   | 2                                    | 19                                   | 2                                     | 20                                       | 0                                     | 7                                             |
| of which: Stanislaus County (unincorporated area) | 2                                   | 1                                    | 6                                    | 1                                     | 7                                        | 0                                     | 4                                             |
| of which: Modesto city                            | 0                                   | 1                                    | 6                                    | 1                                     | 6                                        | 0                                     | 1                                             |
| of which: Newman city                             | 0                                   | 0                                    | 3                                    | 0                                     | 3                                        | 0                                     | 1                                             |
| of which: Patterson city                          | 0                                   | 0                                    | 4                                    | 0                                     | 4                                        | 0                                     | 1                                             |
| 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

| <b>Jurisdiction</b> | <b>NFIP community ID</b> | <b>RL, FMA</b><br><i>properties</i> | <b>SRL, FMA</b><br><i>properties</i> | <b>RL, NFIP</b><br><i>properties</i> | <b>SRL, NFIP</b><br><i>properties</i> | <b>Any category</b><br><i>properties</i> | <b>Mitigated</b><br><i>properties</i> | <b>Currently insured</b><br><i>properties</i> |
|---------------------|--------------------------|-------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------|------------------------------------------|---------------------------------------|-----------------------------------------------|
| Stanislaus County   | 060384                   | 2                                   | 1                                    | 6                                    | 1                                     | 7                                        | 0                                     | 4                                             |
| Ceres city          | 060385                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |
| Hughson city        | 060386                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |
| Modesto city        | 060387                   | 0                                   | 1                                    | 6                                    | 1                                     | 6                                        | 0                                     | 1                                             |
| Newman city         | 060388                   | 0                                   | 0                                    | 3                                    | 0                                     | 3                                        | 0                                     | 1                                             |
| Oakdale city        | 060389                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |
| Patterson city      | 060390                   | 0                                   | 0                                    | 4                                    | 0                                     | 4                                        | 0                                     | 1                                             |
| Riverbank city      | 060391                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |
| Turlock city        | 060392                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |
| Waterford city      | 060393                   | 0                                   | 0                                    | 0                                    | 0                                     | 0                                        | 0                                     | 0                                             |

**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<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|---------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| single-family residential | 0                            | 1                             | 16                            | 1                              | 16                                | 0                              | 5                                      |
| 2 to 4 unit residential   | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| other residential         | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| non-residential           | 2                            | 1                             | 2                             | 1                              | 3                                 | 0                              | 2                                      |
| 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 1 property is FMA repetitive loss but not NFIP repetitive loss, and 18 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):

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <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 2026-09-30, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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](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_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/codes2020/national_place_by_county2020.txt), [https://www2.census.gov/geo/docs/reference/ct\\_change/ct\\_cou\\_to\\_cousub\\_crosswalk.xlsx](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)

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## 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.

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## 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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## Reuse, citation and corrections

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Cite this: Hazard Plain (2026). Stanislaus County, CA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 06099). Automated baseline. <https://hazardplain.org/ca/06099/> Built from FEMA OpenFEMA, the FEMA National Risk Index and NOAA NCEI Storm Events; source versions in the packet's Sources list.

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

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