

# Western District, AS

## Risk-assessment baseline packet

Unit **County area 60050**    Release **2026-10**    As of **2026-09-28**    Storm Events data through **2026-06-30**

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

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

### OPENFEMA DISCLAIMER

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).

## Plan clock

|          |                                     |         |                                                      |
|----------|-------------------------------------|---------|------------------------------------------------------|
| Status   | <b>Approved, expires 2030-06-04</b> | Plan    | <b>American Samoa state-level plan (plan 110788)</b> |
| Approved | <b>2025-06-05</b>                   | Expires | <b>2030-06-04</b>                                    |
| As of    | <b>2026-09-28</b>                   | Days    | <b>1,345 days to expiry</b>                          |

Plan clock from the American Samoa state-level plan; FEMA plan data has no county-level or local plan row for this area.

### What changed since your last plan (approved 2025-06-05)

|                          |                                                         |                                     |                                                    |
|--------------------------|---------------------------------------------------------|-------------------------------------|----------------------------------------------------|
| New federal declarations | <b>none (0 declaration rows; 0 counted incidents)</b>   | Storm Events records since approval | <b>9 (data through 2026-06-30)</b>                 |
| Repetitive loss now      | <b>FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 0</b> | Repeat-flood change                 | <b>First release: no prior release to compare.</b> |

**SOURCES:** FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API); FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API); NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>; FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

## Plan status for every jurisdiction listed in this county

| Jurisdiction | Type | Status | Plan | Approved | Expires | Days to expiry<br><i>negative = days since expiry</i> | Update underway | Notes |
|--------------|------|--------|------|----------|---------|-------------------------------------------------------|-----------------|-------|
|--------------|------|--------|------|----------|---------|-------------------------------------------------------|-----------------|-------|

No rows for this unit.

No member jurisdictions in FEMA plan data for this unit.

Plan 110788 also covers 1 other participant not listed on this page: American Samoa.

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

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

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Supports B1-a: hazards

Hazards NRI does not cover: check locally

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

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

| Rank by EAL | Hazard            | NRI risk rating   | EAL rating                | EAL buildings modeled dollars per year | EAL agriculture modeled dollars per year | EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage | EAL total (see note) modeled dollars per year | Storm Events records since 1996 count | Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996 | Storm Events coverage note                                                                                                                                     |
|-------------|-------------------|-------------------|---------------------------|----------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1           | Tsunami           | Insufficient Data | Relatively Moderate       | \$3,143,215                            |                                          | \$3,731,880                                                                                            | \$6,875,095                                   | 8                                     |                                                                                                   |                                                                                                                                                                |
| 2           | Earthquake        | Insufficient Data | Relatively Moderate       | \$1,526,880                            |                                          | \$3,669,957                                                                                            | \$5,196,837                                   |                                       |                                                                                                   | Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.                                                     |
| 3           | Hurricane         | Insufficient Data | Relatively Moderate       | \$4,418,183                            | \$10,663                                 | \$368,022                                                                                              | \$4,796,868                                   | 12                                    |                                                                                                   |                                                                                                                                                                |
| 4           | Inland Flooding   | Insufficient Data | Very Low                  | \$0                                    | \$3,799                                  | \$613,404                                                                                              | \$617,203                                     | 119                                   |                                                                                                   |                                                                                                                                                                |
| 5           | Coastal Flooding  | Insufficient Data | Very Low                  | \$15,299                               |                                          | \$77                                                                                                   | \$15,376                                      | 4                                     |                                                                                                   |                                                                                                                                                                |
| 6           | Volcanic Activity | Insufficient Data | Relatively Low            | \$10,105                               |                                          | \$4,292                                                                                                | \$14,396                                      | 0                                     |                                                                                                   | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
| 7           | Cold Wave         | Insufficient Data | No Expected Annual Losses | \$0                                    | \$0                                      | \$0                                                                                                    | \$0                                           | 0                                     |                                                                                                   | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
| 8           | Heat Wave         | Insufficient Data | No Expected Annual Losses | \$0                                    | \$0                                      | \$0                                                                                                    | \$0                                           | 4                                     |                                                                                                   |                                                                                                                                                                |

| Rank<br>by<br>EAL | Hazard            | NRI risk<br>rating   | EAL rating                      | EAL<br>buildings<br><i>modeled<br/>dollars per<br/>year</i> | EAL<br>agriculture<br><i>modeled<br/>dollars per year</i> | EAL population<br>equivalence<br><i>statistical value of life and<br/>injury, \$13.7M per life,<br/>not property damage</i> | EAL total<br>(see note)<br><i>modeled<br/>dollars per<br/>year</i> | Storm<br>Events<br>records<br>since 1996<br><i>count</i> | Evidence for an omission<br><i>NRI Not Applicable, no<br/>declaration and no Storm Events<br/>record since 1996</i> | Storm Events coverage note                                                                                                                                     |
|-------------------|-------------------|----------------------|---------------------------------|-------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 9                 | Winter<br>Weather | Insufficient<br>Data | No Expected<br>Annual<br>Losses | \$0                                                         | \$0                                                       | \$0                                                                                                                         | \$0                                                                | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
|                   | Avalanche         | Not<br>Applicable    | Not<br>Applicable               |                                                             |                                                           |                                                                                                                             |                                                                    | 0                                                        | NRI rates avalanche Not Applicable for this county, and no federal declaration for this county names it.            | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                                                                       |
|                   | Drought           | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 5                                                        |                                                                                                                     |                                                                                                                                                                |
|                   | Hail              | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
|                   | Ice Storm         | Not<br>Applicable    | Not<br>Applicable               |                                                             |                                                           |                                                                                                                             |                                                                    | 0                                                        | NRI rates ice storm Not Applicable for this county, and no federal declaration for this county names it.            | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                                                                       |
|                   | Landslide         | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 2                                                        |                                                                                                                     |                                                                                                                                                                |
|                   | Lightning         | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 5                                                        |                                                                                                                     |                                                                                                                                                                |
|                   | Strong Wind       | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 52                                                       |                                                                                                                     | Includes 23 High Wind records and 24 Strong Wind records, event types the NRI definition of this hazard leaves out.                                            |
|                   | Tornado           | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
|                   | Wildfire          | Insufficient<br>Data | Insufficient<br>Data            |                                                             |                                                           |                                                                                                                             |                                                                    | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |

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

#### SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

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

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

## Supports B1-b: location

### Where each hazard occurs

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

**SOURCE**  
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

## Supports B1-c: extent

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

| Hazard    | Scale                   | Records<br><i>count, years</i> | Observed range | Worst recorded event | Most damaging<br>(when different) | How it applies to members | Note                                                             |
|-----------|-------------------------|--------------------------------|----------------|----------------------|-----------------------------------|---------------------------|------------------------------------------------------------------|
| Avalanche | none (count and damage) | 0                              |                |                      |                                   |                           | Physical measure: in event narratives only; local data required. |

| Hazard                                          | Scale                          | Records<br><i>count, years</i> | Observed range                                              | Worst recorded event                                                                                                                                                                                              | Most damaging<br>(when different)                                                       | How it applies to members                                                                           | Note                                                                                                                                                                 |
|-------------------------------------------------|--------------------------------|--------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coastal Flood, Storm Surge/Tide                 | none in data (FIRM for depth)  | 4, 2016 to 2025 (4 zone-level) |                                                             | Coastal Flood, 2022-07-13, \$1,900,000 property; \$10,000 crops, reported for the zone (2022 dollars); Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                                                                         | Zone-level records: applies countywide; national data do not locate these events within the county. | Flood depth: see the FEMA Flood Insurance Rate Map.                                                                                                                  |
| Cold/Wind Chill, Extreme Cold/Wind Chill        | wind chill                     | 0                              |                                                             |                                                                                                                                                                                                                   |                                                                                         |                                                                                                     | Wind chill: in event narratives only; local data required.                                                                                                           |
| Frost/Freeze (outside NRI Cold Wave definition) | crop damage                    | 0                              |                                                             |                                                                                                                                                                                                                   |                                                                                         |                                                                                                     | Temperature: in event narratives only; local data required.                                                                                                          |
| Drought                                         | US Drought Monitor D-scale     | 5, 1998 to 2023 (5 zone-level) | 1 day to 31 days (median 30 days); 5 with a recorded value  | 31 days (1 month), 1998-08-01 to 1998-08-31, zone-level                                                                                                                                                           | Drought, 2023-09-17, \$50,000 property; \$0 crops, reported for the zone (2023 dollars) | Zone-level records: applies countywide; national data do not locate these events within the county. | Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only. |
| Earthquake                                      | Modified Mercalli (local data) | 0                              |                                                             |                                                                                                                                                                                                                   |                                                                                         |                                                                                                     | No Storm Events record; local data required (e.g., USGS).                                                                                                            |
| Hail                                            | hail size (inches)             | 0                              |                                                             |                                                                                                                                                                                                                   |                                                                                         |                                                                                                     |                                                                                                                                                                      |
| Excessive Heat, Heat                            | heat index (narratives)        | 4, 2016 to 2022 (4 zone-level) | 4 days to 6 days (median 5.5 days); 4 with a recorded value | 6 consecutive days, 2022-03-12 to 2022-03-17, zone-level                                                                                                                                                          |                                                                                         | Zone-level records: applies countywide; national data do not locate these events within the county. | Heat index: in event narratives only; local data required.                                                                                                           |

| Hazard                                                  | Scale                                                                                                   | Records<br><i>count, years</i>           | Observed range | Worst recorded event                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Most damaging<br>(when different)                                                                                                                       | How it applies to members                                                                              | Note                                                                                                                                                                                                                                                                                       |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hurricane,<br>Tropical Storm,<br>Tropical<br>Depression | Saffir-Simpson                                                                                          | 12, 1998 to<br>2018 (12 zone-<br>level)  |                | Strongest recorded<br>(records with damage, a<br>wind speed or direct<br>casualties first, then<br>storm type, category and<br>wind): Hurricane<br>(Typhoon) record,<br>2004-01-04 to<br>2004-01-05, \$50,000,000<br>property; crops not<br>reported, reported for the<br>zone (2004 dollars), 20<br>direct injuries (reported<br>for the zone); Storm<br>Events area TUTUILA<br>(legacy zone code<br>ASZ002), zone-level: may<br>include parts of<br>neighboring counties | Most damaging<br>recorded: Tropical<br>Storm, 2018-02-09,<br>\$50,000,000<br>property; \$2,000,000<br>crops, reported for<br>the zone (2018<br>dollars) | Zone-level records: applies countywide; national data do not<br>locate these events within the county. | Storm Events files<br>every zone of a storm's<br>episode under the<br>storm's event type and<br>category, so a<br>Hurricane (Typhoon)<br>record, especially an<br>inland or remnant one,<br>does not by itself mean<br>hurricane-force winds<br>here; read the damage<br>and wind columns. |
| Ice Storm                                               | Sperry-Piltz<br>(local data)                                                                            | 0                                        |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                         |                                                                                                        | Ice thickness: in event<br>narratives only; local<br>data required.                                                                                                                                                                                                                        |
| Flash Flood,<br>Flood,<br>Lakeshore<br>Flood            | damage and<br>flood days<br>(FIRM for<br>depth)                                                         | 119, 1998 to<br>2026 (119<br>zone-level) |                | Flash Flood, 2003-05-19,<br>\$50,000,000 property;<br>\$1,000,000 crops,<br>reported for the zone<br>(2003 dollars), 4 direct<br>deaths, 6 direct injuries<br>(reported for the zone);<br>Storm Events area<br>TUTUILA (legacy zone<br>code ASZ002), zone-<br>level: may include parts of<br>neighboring counties                                                                                                                                                          |                                                                                                                                                         | Zone-level records: applies countywide; national data do not<br>locate these events within the county. | Flood depth: see the<br>FEMA Flood Insurance<br>Rate Map. Storm<br>Events damage can be<br>\$0 or blank even for a<br>major flood, so the<br>worst record here may<br>not be the worst flood;<br>compare FEMA Public<br>Assistance by<br>declaration in B1-d.                              |
| Debris Flow                                             | none (count<br>and damage)                                                                              | 2, 2004 to<br>2006 (2 zone-<br>level)    |                | Debris Flow, 2006-01-31,<br>\$40,000 property; crops<br>not reported, reported for<br>the zone (2006 dollars);<br>Storm Events area<br>TUTUILA (legacy zone<br>code ASZ002), zone-<br>level: may include parts of<br>neighboring counties                                                                                                                                                                                                                                  |                                                                                                                                                         | Zone-level records: applies countywide; national data do not<br>locate these events within the county. | Physical measure: in<br>event narratives only;<br>local data required.                                                                                                                                                                                                                     |
| Lightning                                               | annualized<br>frequency (the<br>measure<br>FEMA's Local<br>Mitigation<br>Planning<br>Handbook<br>names) | 5, 2006 to<br>2023 (5 zone-<br>level)    |                | Lightning, 2006-04-04,<br>damage not reported, 1<br>direct death, 1 direct<br>injury (reported for the<br>zone); Storm Events area<br>TUTUILA (legacy zone<br>code ASZ002), zone-<br>level: may include parts of<br>neighboring counties                                                                                                                                                                                                                                   | Lightning,<br>2023-04-15,<br>\$100,000 property;<br>\$0 crops, reported for<br>the zone (2023<br>dollars)                                               | Zone-level records: applies countywide; national data do not<br>locate these events within the county. | Storm Events lists<br>lightning with damage<br>or casualties; physical<br>measure in event<br>narratives only; local<br>data required.                                                                                                                                                     |

| Hazard                                                         | Scale                               | Records<br><i>count, years</i>   | Observed range                                                                     | Worst recorded event                                                                                                                                                                                                                                                                  | Most damaging<br>(when different)                                                                                                                                                                                                                            | How it applies to members                                                                           | Note                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------|-------------------------------------|----------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High Wind and Strong Wind (outside NRI Strong Wind definition) | wind speed (kt and mph)             | 47, 1998 to 2025 (47 zone-level) | 25 kt (29 mph) to 65 kt (75 mph) (median 43 kt (49 mph)); 45 with a recorded value | 65 kt (75 mph) measured gust, High Wind, 2020-02-20; Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties                                                                                                                       | Strong Wind, 2013-07-02, property not reported; \$4,000,000 crops, reported for the zone (2013 dollars) (as recorded; larger than this county's annual agriculture value in the National Risk Index; confirm with the county or the state extension service) | Zone-level records: applies countywide; national data do not locate these events within the county. |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Thunderstorm Wind                                              | wind speed (kt and mph)             | 5, 2023 to 2026 (5 zone-level)   |                                                                                    | No thunderstorm wind record can stand as this county's strongest: the 5 records with a recorded speed reached this county only through an NWS zone that covers more than one county, so the wind may have occurred outside this county (zone-level); they are counted as occurrences. | Thunderstorm Wind, 2024-02-03, \$200,000 property; \$0 crops, reported for the zone (2024 dollars)                                                                                                                                                           | Zone-level records: applies countywide; national data do not locate these events within the county. |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Tornado                                                        | Enhanced Fujita (F before Feb 2007) | 0                                |                                                                                    |                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                              |                                                                                                     | From 1996 on, tornado records are per-county segments and length is the path length within this county (NWS Instruction 10-1605); records before 1996 may give the whole path length, including the path outside this county, and before 1996 a tornado is listed once, under the county where it began, with the whole path's rating; counties farther along the path may not list it. Length is not used to rank tornadoes. |

| Hazard                                                                      | Scale                                   | Records<br><i>count, years</i> | Observed range | Worst recorded event                                                                                                                                                                                                                                                        | Most damaging<br>(when different) | How it applies to members                                                                           | Note                                                             |
|-----------------------------------------------------------------------------|-----------------------------------------|--------------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------------|
| Tsunami                                                                     | none (count and damage)                 | 8, 2006 to 2025 (8 zone-level) |                | Tsunami, 2009-09-29, \$81,000,000 property; \$20,000 crops, reported for the zone (2009 dollars), 32 direct deaths, 129 direct injuries (reported for the zone); Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                   | Zone-level records: applies countywide; national data do not locate these events within the county. | Physical measure: in event narratives only; local data required. |
| Volcanic Ash, Volcanic Ashfall                                              | Volcanic Explosivity Index (local data) | 0                              |                |                                                                                                                                                                                                                                                                             |                                   |                                                                                                     | Physical measure: in event narratives only; local data required. |
| Wildfire                                                                    | acres burned (local data)               | 0                              |                |                                                                                                                                                                                                                                                                             |                                   |                                                                                                     | Acres burned: in event narratives only; local data required.     |
| Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet | none in data (snowfall local)           | 0                              |                |                                                                                                                                                                                                                                                                             |                                   |                                                                                                     | Snow depth: in event narratives only; local data required.       |

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

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

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>  
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Supports B1-d: previous occurrences

Declaration rows16Counted incidents13

Federal disaster declarations for this county

| Declared   | Incident began | FEMA number | Type           | Title             | Mapped hazard            | County Public Assistance<br><i>federal share obligated, nominal dollars</i> | Flags | Notes                    |
|------------|----------------|-------------|----------------|-------------------|--------------------------|-----------------------------------------------------------------------------|-------|--------------------------|
| 2020-04-17 | 2020-01-20     | DR-4537-AS  | Major disaster | COVID-19 PANDEMIC | Non-natural, not counted | none found                                                                  |       |                          |
| 2020-03-13 | 2020-01-20     | EM-3465-AS  | Emergency      | COVID-19          | Non-natural, not counted | none found                                                                  |       | same incident as DR-4537 |

| Declared   | Incident began | FEMA number | Type           | Title                                                                           | Mapped hazard                                         | County Public Assistance                        |       |                          |
|------------|----------------|-------------|----------------|---------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------|-------|--------------------------|
|            |                |             |                |                                                                                 |                                                       | <i>federal share obligated, nominal dollars</i> | Flags | Notes                    |
| 2018-03-02 | 2018-02-07     | DR-4357-AS  | Major disaster | TROPICAL STORM GITA                                                             | Hurricane                                             | none found                                      |       |                          |
| 2018-02-11 | 2018-02-07     | EM-3397-AS  | Emergency      | TROPICAL STORM GITA                                                             | Hurricane                                             | none found                                      |       | same incident as DR-4357 |
| 2014-09-10 | 2014-07-29     | DR-4192-AS  | Major disaster | SEVERE STORMS, FLOODING, AND LANDSLIDES                                         | Inland Flooding; Landslide                            | none found                                      |       |                          |
| 2009-09-29 | 2009-09-29     | DR-1859-AS  | Major disaster | EARTHQUAKE, TSUNAMI, AND FLOODING                                               | Earthquake (primary); also designated: Tsunami        | none found                                      |       |                          |
| 2005-02-18 | 2005-02-15     | DR-1582-AS  | Major disaster | TC OLAF, INCLUD. HIGH WINDS AND SURF AND HEAVY RAINFALL                         | Hurricane                                             | none found                                      |       |                          |
| 2004-01-13 | 2004-01-02     | DR-1506-AS  | Major disaster | HIGH WINDS, HIGH SURF, AND HEAVY RAINFALL ASSOCIATED WITH TROPICAL CYCLONE HETA | Hurricane                                             | none found                                      |       |                          |
| 2003-06-06 | 2003-05-19     | DR-1473-AS  | Major disaster | HEAVY RAINFALL, FLOODING, LANDSLIDES, AND MUDSLIDES                             | Inland Flooding; Landslide                            | none found                                      |       |                          |
| 1991-12-13 | 1991-12-06     | DR-927-AS   | Major disaster | HURRICANE VAL                                                                   | Hurricane                                             | none found                                      |       |                          |
| 1990-02-09 | 1990-02-02     | DR-855-AS   | Major disaster | HURRICANE OFA                                                                   | Hurricane                                             | none found                                      |       |                          |
| 1987-01-24 | 1987-01-17     | DR-785-AS   | Major disaster | HURRICANE TUSI                                                                  | Hurricane                                             | none found                                      |       |                          |
| 1981-03-24 | 1981-03-24     | DR-637-AS   | Major disaster | TYPHOON ESAU                                                                    | Hurricane                                             | none found                                      |       |                          |
| 1979-11-09 | 1979-11-09     | DR-610-AS   | Major disaster | FLOODING, MUDSLIDES & LANDSLIDES                                                | Inland Flooding (primary); also designated: Landslide | none found                                      |       |                          |
| 1974-09-30 | 1974-09-30     | DR-449-AS   | Major disaster | DROUGHT                                                                         | Drought                                               | PA not declared for this county                 |       |                          |
| 1966-02-10 | 1966-02-10     | DR-213-AS   | Major disaster | TYPHOON & HIGH TIDES                                                            | Hurricane (primary); also designated: Inland Flooding | none found                                      |       |                          |

All Public Assistance rows for this state or territory in FEMA data are recorded as Statewide or with a blank county; see the state page.

County Public Assistance: applicants the FEMA record places in this county, including any state agencies FEMA files there; statewide rows are listed on the state page; federal share obligated, nominal dollars.

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

#### SOURCES

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

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

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

#### Statewide declarations

| Declared   | Incident began | FEMA number | Type           | Title                               | Mapped hazard                | Flags               | Notes |
|------------|----------------|-------------|----------------|-------------------------------------|------------------------------|---------------------|-------|
| 2022-09-15 | 2022-07-12     | DR-4669-AS  | Major disaster | HIGH SURF, HIGH WINDS, AND FLOODING | Inland Flooding; Strong Wind | within last 5 years |       |

FEMA recorded these with designated area Statewide and no county. Listed on every county page in the state; not counted with county rows.

#### SOURCE

**Previous occurrences by hazard, with explicit no-event rows**

| <b>Hazard</b>     | <b>Storm Events<br/>records<br/><i>full period</i></b> | <b>Since plan<br/>approval<br/>records</b> | <b>During plan<br/>review<br/>records</b> | <b>Last 5<br/>years<br/>records</b> | <b>Declared<br/>incidents<br/><i>distinct incidents</i></b> | <b>Declared since<br/>approval<br/><i>distinct incidents</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  | 4                                                      | 0                                          | 1                                         | 2                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Cold Wave         | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Drought           | 5                                                      | 0                                          | 0                                         | 1                                   | 1                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Earthquake        | 0                                                      | 0                                          | 0                                         | 0                                   | 1                                                           | 0                                                                |                    | No Storm Events record; local data required (e.g., USGS).                                                           |
| Hail              | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1955 to 2026-06-30 | No recorded events, 1955 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Heat Wave         | 4                                                      | 0                                          | 0                                         | 3                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Hurricane         | 12                                                     | 0                                          | 0                                         | 0                                   | 8                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Ice Storm         | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Inland Flooding   | 119                                                    | 5                                          | 12                                        | 28                                  | 4                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Landslide         | 2                                                      | 0                                          | 0                                         | 0                                   | 3                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Lightning         | 5                                                      | 0                                          | 0                                         | 2                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                     |
| Strong Wind       | 52                                                     | 2                                          | 12                                        | 19                                  | 0                                                           | 0                                                                | 1955 to 2026-06-30 | Includes 23 High Wind records and 24 Strong Wind records, event types the NRI definition of this hazard leaves out. |
| Tornado           | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1950 to 2026-06-30 | No recorded events, 1950 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Tsunami           | 8                                                      | 2                                          | 0                                         | 3                                   | 1                                                           | 0                                                                | 1996 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          | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Winter Weather    | 0                                                      | 0                                          | 0                                         | 0                                   | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                      |

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

## Notable Storm Events records

| Date       | Event type          | Magnitude or extent          | Damage<br><i>nominal dollars</i>                                                | Direct deaths, injuries<br><i>indirect not counted</i> | Location                                                                                                   | Flags                                    | Why listed                                                                          |
|------------|---------------------|------------------------------|---------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------------------------------------------------------------------|
| 2025-07-26 | Flash Flood         |                              | \$150,000 property; \$0 crops, reported for the zone (2025 dollars)             | 1, 3                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties | new since last plan; within last 5 years | deaths or injuries recorded                                                         |
| 2023-09-17 | Drought             |                              | \$50,000 property; \$0 crops, reported for the zone (2023 dollars)              | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties | within last 5 years                      | B1-c most damaging: Drought                                                         |
| 2022-07-13 | Coastal Flood       |                              | \$1,900,000 property; \$10,000 crops, reported for the zone (2022 dollars)      | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties | within last 5 years                      | B1-c worst recorded: Coastal Flood, Storm Surge/Tide                                |
| 2022-03-12 | Heat                |                              | \$0 property; \$0 crops, reported for the zone (2022 dollars)                   | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties | within last 5 years                      | B1-c worst recorded: Excessive Heat, Heat                                           |
| 2020-02-20 | High Wind           | 65 kt (75 mph) measured gust | \$5,000 property; \$0 crops, reported for the zone (2020 dollars)               | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition) |
| 2018-02-09 | Tropical Storm      |                              | \$50,000,000 property; \$2,000,000 crops, reported for the zone (2018 dollars)  | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c most damaging: Hurricane, Tropical Storm, Tropical Depression                  |
| 2009-09-29 | Tsunami             |                              | \$81,000,000 property; \$20,000 crops, reported for the zone (2009 dollars)     | 32, 129                                                | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | deaths or injuries recorded                                                         |
| 2006-04-04 | Lightning           |                              | damage not reported                                                             | 1, 1                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c worst recorded: Lightning                                                      |
| 2006-01-31 | Debris Flow         |                              | \$40,000 property; crops not reported, reported for the zone (2006 dollars)     | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c worst recorded: Debris Flow                                                    |
| 2004-01-04 | Hurricane (Typhoon) |                              | \$50,000,000 property; crops not reported, reported for the zone (2004 dollars) | 0, 20                                                  | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression                 |
| 2003-05-19 | Flash Flood         |                              | \$50,000,000 property; \$1,000,000 crops, reported for the zone (2003 dollars)  | 4, 6                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | deaths or injuries recorded                                                         |
| 1998-08-01 | Drought             |                              | damage not reported                                                             | 0, 0                                                   | Storm Events area TUTUILA (legacy zone code ASZ002), zone-level: may include parts of neighboring counties |                                          | B1-c worst recorded: Drought                                                        |

The full list is in the **XLSX** file, sheet "B1-d Storm Events history" (211 rows).

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

SOURCES

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

State-declared emergencies are not in federal data. Add them from your state emergency management agency.  
FEMA's declaration data list no tribal or special-area declarations for this state.

Supports B1-e: probability

Probability: FEMA annualized frequency and descriptor per hazard

| Hazard              | FEMA<br>annualized<br>frequency<br>(modeled)<br><i>unit per row</i> | Unit                                       | In plain terms                                                                                           | Descriptor | Descriptor basis                                                     | NRI events or days in<br>its record period (hail,<br>wind and tornado are<br>area-weighted, so can<br>be fractional) | NRI period                                          | Location   | Note                                                                                                                                                                                                                                                                             |
|---------------------|---------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------------------------------------------------------------|------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche           |                                                                     | events per year                            |                                                                                                          |            |                                                                      |                                                                                                                      | 1994 to 2023<br>(30 years)                          | see B1-f   | Not Applicable in NRI for this county; no descriptor.                                                                                                                                                                                                                            |
| Coastal<br>Flooding | 0.325                                                               | events per year at a<br>location (modeled) | about 0.33 per year<br>at a given location<br>in the county                                              | Likely     | Storm Events<br>records in 4 of 30<br>years, 1996 to<br>2025 (13.3%) | not shown                                                                                                            | modeled                                             | see B1-f   | Descriptor from Storm Events, not NRI: the NRI value is the chance at a location in the county, not how often the hazard affects the county.                                                                                                                                     |
| Cold Wave           | 0                                                                   | event-days per year                        | none modeled                                                                                             |            | event-days in 0 of<br>30 years, 1996 to<br>2025 (0%)                 | 0                                                                                                                    | 2005-11-12 to<br>2024-11-12 (19<br>years)           | countywide | No recorded event-days, 1996 to 2025; descriptor not assigned. Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.                                                                                                                |
| Drought             |                                                                     | event-days per year                        |                                                                                                          | Possible   | event-days in 2 of<br>30 years, 1996 to<br>2025 (6.67%)              |                                                                                                                      | 2000 to 2025<br>(25.25 years;<br>D3 and D4<br>only) | countywide |                                                                                                                                                                                                                                                                                  |
| Earthquake          | 0.00773                                                             | annual probability<br>at a location        | chance a given<br>location in the<br>county has at least<br>minor-damage<br>shaking in a year:<br>0.773% |            |                                                                      | not shown                                                                                                            | modeled                                             | see B1-f   | Descriptor not assigned: the NRI value is the chance at a location in the county, not how often the hazard affects the county, and Storm Events does not record earthquakes.                                                                                                     |
| Hail                |                                                                     | events per year                            |                                                                                                          |            |                                                                      |                                                                                                                      | 1986 to 2023<br>(38 years)                          | countywide | NRI publishes no annualized frequency for this hazard in this county.                                                                                                                                                                                                            |
| Heat Wave           | 0                                                                   | event-days per year                        | none modeled                                                                                             | Possible   | event-days in 2 of<br>30 years, 1996 to<br>2025 (6.67%)              | 0                                                                                                                    | 2005-11-12 to<br>2024-11-12 (19<br>years)           | countywide | NRI models no heat wave event-days here (2005-11-12 to 2024-11-12, 19 years), but Storm Events has a record in 2 of 30 years. The descriptor comes from Storm Events, which records events NRI's definition leaves out, so the two use different thresholds; read them together. |

| 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                                                                                                                                                                                |
|-------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------|------------|-----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hurricane         | 0.0789                                                     | events per year                                                                   | about 1 in 13 years                                           | Possible   | FEMA annualized frequency (modeled)                       | 6                                                                                                        | 1949 to 2024 (Pacific)                    | see B1-f   | NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are counted separately in B1-d and need not match.                       |
| Ice Storm         |                                                            | event-days per year                                                               |                                                               |            |                                                           |                                                                                                          | 1946-12-31 to 2014-02-12 (67 years)       | countywide | Not Applicable in NRI for this county; no descriptor.                                                                                                                               |
| Inland Flooding   | 3.11                                                       | event-days per year                                                               | about 3.11 days per year                                      | Likely     | event-days in 26 of 30 years, 1996 to 2025 (86.7%)        | 87                                                                                                       | 1996 to 2023 (28 years)                   | see B1-f   |                                                                                                                                                                                     |
| Landslide         |                                                            | events per year (modeled)                                                         |                                                               |            |                                                           | not shown                                                                                                | modeled                                   | see B1-f   | NRI publishes no annualized frequency for this hazard in this county.                                                                                                               |
| Lightning         |                                                            | days per year with a strike                                                       |                                                               |            |                                                           | not shown                                                                                                | 1995 to 2023 (29 years; CONUS)            | countywide | Descriptor not assigned: NRI publishes no lightning frequency for this county.                                                                                                      |
| Strong Wind       |                                                            | events per year                                                                   |                                                               |            |                                                           |                                                                                                          | 1986 to 2023 (38 years)                   | countywide | NRI publishes no annualized frequency for this hazard in this county.                                                                                                               |
| Tornado           |                                                            | events per year                                                                   |                                                               |            |                                                           | not shown                                                                                                | 1950 to 2023 (EF2+); 1986 to 2023 (EF0-1) | see B1-f   | NRI publishes no annualized frequency for this hazard in this county.                                                                                                               |
| Tsunami           | 0.357                                                      | annual probability at the most exposed location (used in place of a county value) | chance at the county's most exposed location in a year: 35.7% | Likely     | Storm Events records in 6 of 30 years, 1996 to 2025 (20%) | not shown                                                                                                | modeled                                   | see B1-f   | Descriptor from Storm Events, not NRI: the NRI value is the chance at a location in the county, not how often the hazard affects the county.                                        |
| Volcanic Activity | 0.0003                                                     | annual probability                                                                | about 1 in 3,333 years                                        | Unlikely   | FEMA annualized frequency (modeled)                       | not shown                                                                                                | modeled                                   | see B1-f   |                                                                                                                                                                                     |
| Wildfire          |                                                            | annual probability at a location                                                  |                                                               |            | Storm Events records in 0 of 30 years, 1996 to 2025 (0%)  | not shown                                                                                                | modeled                                   | see B1-f   | No Storm Events record of this hazard, 1996 to 2025; descriptor not assigned (the NRI value is the chance at a location in the county, not how often the hazard affects the county) |
| Winter Weather    | 0                                                          | event-days per year                                                               | none modeled                                                  |            | event-days in 0 of 30 years, 1996 to 2025 (0%)            | 0                                                                                                        | 2005-11-12 to 2024-11-12 (19 years)       | countywide | No recorded event-days, 1996 to 2025; descriptor not assigned                                                                                                                       |

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

in a year. Drought counts only extreme and exceptional drought (D3 and D4). Source: FEMA, National Risk Index Technical Documentation v1.20, sections 5.2.2 (Table 5), 5.2.3, 7.4, 10.4, 16.5, 17.1, 17.3.1, 17.5, 20.3.1, 21.4, 22.4 and 6 to 23.

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

Descriptor scale used in this packet (defined per unit)

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

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

Intensity bands: historical frequency (Storm Events)

| Hazard                                  | Band                      | Years        | Events<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                                        |
| Strong Wind (Thunderstorm Wind records) | 50-64 kt                  | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Strong Wind (Thunderstorm Wind records) | 65 kt+                    | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Strong Wind (Thunderstorm Wind records) | unmeasured or below 50 kt | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado                                 | EF0-1                     | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado                                 | EF2-3                     | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado                                 | EF4-5                     | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado                                 | unrated (EFU)             | 1996 to 2025 | 0                                     | 30              | 0                                        |

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

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

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

## Supports B1-f: variation across the planning area

### Range of census tract risk within the county

|                      |                           | Risk score<br>min      |        |     |                                          |                                                                                                                                                                                                                                      |
|----------------------|---------------------------|------------------------|--------|-----|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Tracts<br>rated of<br>all | NRI score, 0<br>to 100 | Median | Max | Tracts by rating                         | Note                                                                                                                                                                                                                                 |
| Avalanche            | 0 of 8                    |                        |        |     | Not Applicable 8                         |                                                                                                                                                                                                                                      |
| Coastal<br>Flooding  | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Cold Wave            | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Drought              | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Earthquake           | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Hail                 | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Heat Wave            | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Hurricane            | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Ice Storm            | 0 of 8                    |                        |        |     | Not Applicable 8                         | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Inland<br>Flooding   | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Landslide            | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Lightning            | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Strong Wind          | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Tornado              | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Tsunami              | 0 of 8                    |                        |        |     | Not Applicable 2,<br>Insufficient Data 6 |                                                                                                                                                                                                                                      |
| Volcanic<br>Activity | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Wildfire             | 0 of 8                    |                        |        |     | Insufficient Data 8                      |                                                                                                                                                                                                                                      |
| Winter<br>Weather    | 0 of 8                    |                        |        |     | Insufficient Data 8                      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |

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

#### SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

Per-member block (Starter, confirm locally)

| Member | Type | Plan status | Repetitive loss<br><i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i> | Public Assistance matched<br><i>federal share obligated, nominal dollars</i> | Event records naming this place<br><i>all years; since the member's plan</i> | Notes |
|--------|------|-------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|
|--------|------|-------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------|

No rows for this unit.

No city, town, township or county member rows in FEMA plan data for this unit; same as county.

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

SOURCES

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)  
FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)  
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)  
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

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

Local data required

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

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

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

| Hazard           | Building exposure<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> | EAL population equivalence<br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2025-06-05<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        |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county                 |
| Coastal Flooding | \$924,626,105                               |                                                | 6,759                               | \$15,299                                         |                                                    |                                                                                                                  | \$77                                                              | 0.00165%                                                                                                  |                                                                                   |                                                                  |                                                       |
| Cold Wave        | \$0                                         | \$0                                            | 0                                   | \$0                                              | \$0                                                |                                                                                                                  | \$0                                                               |                                                                                                           |                                                                                   |                                                                  | building exposure is 0 in NRI                         |
| Drought          |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | NRI publishes no agriculture exposure for this county |
| Earthquake       | \$6,342,164,354                             |                                                | 31,225                              | \$1,526,880                                      |                                                    |                                                                                                                  | \$3,669,957                                                       | 0.0241%                                                                                                   |                                                                                   |                                                                  |                                                       |

| <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>EAL population equivalence</b><br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | <b>EAL as % of exposure</b><br><i>buildings; agriculture where noted</i> | <b>Storm Events damage since 2025-06-05</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>                                                                                                                                                                                            |
|-------------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hail              |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | NRI publishes no building exposure for this county                                                                                                                                                     |
| Heat Wave         | \$0                                                | \$0                                                   | 0                                          | \$0                                                     | \$0                                                       | \$0                                                                                                                     |                                                                          |                                                                                                                  |                                                                                          |                                                                         | building exposure is 0 in NRI                                                                                                                                                                          |
| Hurricane         | \$3,896,502,396                                    | \$2,999,911                                           | 31,217                                     | \$4,418,183                                             | \$10,663                                                  | \$368,022                                                                                                               | 0.113%                                                                   |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                        |
| Ice Storm         |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | Not Applicable in NRI for this county                                                                                                                                                                  |
| Inland Flooding   | \$0                                                | \$102,509                                             | 6,780                                      | \$0                                                     | \$3,799                                                   | \$613,404                                                                                                               | n/a (see note)                                                           |                                                                                                                  | \$285,000                                                                                |                                                                         | NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b. EAL as % of exposure: n/a.   |
| Landslide         |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | NRI publishes no building exposure for this county                                                                                                                                                     |
| Lightning         |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | NRI publishes no building exposure for this county                                                                                                                                                     |
| Strong Wind       |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  | \$175,000                                                                                |                                                                         | NRI publishes no building exposure for this county Storm Events damage since the plan includes 1 zone-level Strong Wind record (\$25,000), an event type the NRI definition of this hazard leaves out. |
| Tornado           |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | NRI publishes no building exposure for this county                                                                                                                                                     |
| Tsunami           | \$1,542,447,495                                    |                                                       | 2,547                                      | \$3,143,215                                             |                                                           | \$3,731,880                                                                                                             | 0.204%                                                                   |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                        |
| Volcanic Activity | \$3,896,502,396                                    |                                                       | 31,217                                     | \$10,105                                                |                                                           | \$4,292                                                                                                                 | 0.000259%                                                                |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                        |
| Wildfire          |                                                    |                                                       |                                            |                                                         |                                                           |                                                                                                                         |                                                                          |                                                                                                                  |                                                                                          |                                                                         | NRI publishes no building exposure for this county                                                                                                                                                     |
| Winter Weather    | \$0                                                | \$0                                                   | 0                                          | \$0                                                     | \$0                                                       | \$0                                                                                                                     |                                                                          |                                                                                                                  |                                                                                          |                                                                         | building exposure is 0 in NRI                                                                                                                                                                          |

Totals since 2025-06-05 (Storm Events through 2026-06-30): 0 county-coded records, 0 with a damage value recorded (including \$0), \$0; 9 zone-level records, 7 with a damage value recorded (including \$0), \$460,000 reported for the zone; Public Assistance on counted declarations none found (0 declarations, 0 with PA).

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

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

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

#### SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

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

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

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

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

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

## Supports B2-a: context

### County context

| Measure                                                                                                                                                                       | Value             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Population                                                                                                                                                                    | 31,217            |
| Building value (total, not at risk)                                                                                                                                           | \$3,896,502,396   |
| Agriculture value (total, not at risk)                                                                                                                                        | \$2,999,911       |
| NRI risk rating (all hazards)                                                                                                                                                 | Insufficient Data |
| Expected annual loss, buildings and agriculture, all hazards                                                                                                                  | \$9,128,143       |
| 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) | \$8,387,633       |
| Social vulnerability rating                                                                                                                                                   | Data Unavailable  |
| Community resilience rating                                                                                                                                                   | Data Unavailable  |
| NRI version                                                                                                                                                                   | December 2025     |

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

**SOURCE**

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

## Supports B2-c: repetitive loss

### Repetitive loss in this county, both definitions

| Definition                                    | Properties | Severe repetitive loss                               | Properties |
|-----------------------------------------------|------------|------------------------------------------------------|------------|
| Repetitive loss, FMA definition (44 CFR 77.2) | 0          | Severe repetitive loss, FMA definition (44 CFR 77.2) | 0          |
| Repetitive loss, NFIP insurance definition    | 0          | Severe repetitive loss, NFIP insurance definition    | 0          |

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

**SOURCES**

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

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

Repeat-flood properties: county and state-level rows

| Scope                                                | RL, FMA<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> |
|------------------------------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| County total                                         | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| State level, not in this county: county not reported | 0                            | 0                             | 2                             | 0                              | 2                                 | 0                              | 0                                      |

SOURCES

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

County repeat-flood properties by occupancy group

| 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                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| 2 to 4 unit residential   | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| other residential         | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| non-residential           | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| not reported              | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |

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

SOURCES

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

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

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

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

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

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

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-28, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_counties\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_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_Gaz_cousubs_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_Gaz_place_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_Gaz_unsd_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_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/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)

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

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File hazard-plain\_2026-10\_AS\_60050. Preview: automated baseline.