

Shelby County, IA

Risk-assessment baseline packet

County FIPS: 19165 Release: 2026-10 Data as of: 2026-09-30 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.

Summary

Plan status as of 2026-09-30: Approved, expires 2026-10-26. Plan: Harrison and Shelby Counties HMP (FEMA plan 107751), approved 2021-10-26.

Since the plan was approved on 2021-10-26: 2 new hazard declarations (2 incidents): DR-4779-IA (Severe Storms and Tornadoes), DR-4784-IA (Severe Storms, Tornadoes, and Flooding).

NOAA Storm Events records since that date: 61 records (data through 2026-06-30).

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$3,792,833 a year), Tornado (\$3,182,666) and Cold Wave (\$1,777,990).

Repetitive-loss flood properties now: FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 1.

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

TERMS USED

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

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

NFIP: National Flood Insurance Program.

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

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

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

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

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

FIPS: the federal code for a place; 19165 is this area.

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

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

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

CFR: Code of Federal Regulations.

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

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

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Plan clock

Status:	Approved, expires 2026-10-26	Plan:	Harrison and Shelby Counties HMP (FEMA plan 107751)
Approved:	2021-10-26	Days to expiry:	26
Update underway:	none recorded in FEMA's plan tracker		

What changed since your last plan (approved 2021-10-26)

New federal declarations:	2 new hazard declarations (2 incidents): DR-4779-IA (Severe Storms and Tornadoes), DR-4784-IA (Severe Storms, Tornadoes, and Flooding)	Storm Events records since approval:	61 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 1	Repeat-flood change:	this release sets the baseline count.

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

Plan status for every jurisdiction listed in this county: 19 rows, in the section "Plan clock: Plan status for every jurisdiction listed in this county" on the following pages.

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

Plan clock

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Shelby County	County	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Defiance city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Earling city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Elk Horn city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Harlan city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Irwin city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Kirkman city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Panama city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Portsmouth city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Shelby city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Tennant city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Westphalia city	City	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
AHSTW Community School District	School/School District	Approved, expires 2029-08-07	Pottawattamie County (FEMA plan 109500)	2024-08-08	2029-08-07	1,042		this jurisdiction approved 2025-02-13

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Boyer Valley Community School District	School/School District	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Exira-Elk Horn-Kimballton Community School District	School/School District	Approved, expires 2030-08-06	Audubon County Multi-Jurisdictional Hazard Mitigation Plan (FEMA plan 110657)	2025-08-07	2030-08-06	1,406		Also approved under plan 107751 (Harrison and Shelby Counties HMP, expires 2026-10-26). FEMA's plan status map shows one plan per jurisdiction and may show one of these; this packet uses the approved plan that expires last. this jurisdiction approved 2025-08-26
Harlan Community School District	School/School District	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
IKM-Manning Community School District	School/School District	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18
Tri-Center Community School District	School/School District	Plan 109500 approved 2024-08-08, pending adoption here; not yet eligible	Pottawattamie County (FEMA plan 109500), pending adoption here	2024-08-08 by FEMA; not yet adopted here	2029-08-07 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Woodbine Community School District	School/School District	Approved, expires 2026-10-26	Harrison and Shelby Counties HMP (FEMA plan 107751)	2021-10-26	2026-10-26	26		this jurisdiction approved 2022-04-18

Plan 107751 covers 14 other participants, named in the Excel file.

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

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

- expansive soils

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

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Very Low	Very Low	\$3,770,855	\$21,819	\$159	\$3,792,833	5	
2	Tornado	Relatively Low	Relatively Moderate	\$1,218,148	\$10,978	\$1,953,539	\$3,182,666	16	
3	Cold Wave	Relatively Low	Relatively Moderate	\$1,596	\$308,093	\$1,468,301	\$1,777,990	45	
4	Drought	Relatively Moderate	Relatively Moderate	n/a	\$1,383,176	n/a	\$1,383,176	10	
5	Hail	Relatively Moderate	Relatively Moderate	\$410,269	\$741,236	\$142,071	\$1,293,577	115	
6	Strong Wind	Relatively Low	Relatively Moderate	\$241,578	\$209,559	\$246,614	\$697,751	132	Includes 22 High Wind and 3 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
7	Heat Wave	Very Low	Relatively Low	\$4,566	\$7	\$296,694	\$301,267	22	
8	Ice Storm	Relatively Low	Relatively Low	\$80,514	n/a	\$8,207	\$88,722	3	
9	Winter Weather	Relatively Low	Relatively Low	\$23,686	\$524	\$24,790	\$49,000	69	
10	Lightning	Very Low	Very Low	\$6,268	n/a	\$39,511	\$45,779	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
11	Wildfire	Very Low	Very Low	\$10,858	\$354	\$1,704	\$12,916	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
12	Earthquake	Very Low	Very Low	\$9,274	n/a	\$2,517	\$11,791		Storm Events does not record earthquakes.
13	Landslide	Relatively Low	Relatively Low	\$446	n/a	\$10,245	\$10,692	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Hurricane	No Rating	No Expected Annual Losses	\$0	\$0	\$0	\$0	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

Local data needed: state and local lightning, wildfire and landslide records (Storm Events records these hazards only in part).

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

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

Supports FEMA checklist item B1-b: hazard location

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

Inland Flooding: The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center (<https://msc.fema.gov>) for this county.

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

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 9603 (Very Low, 14.9); tract 9602 (Very Low, 13.7); tract 9601 (Very Low, 12.3)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 9602 (Relatively Moderate, 97.2); tract 9601 (Relatively Moderate, 95.8); tract 9604 (Relatively Low, 86.0)
Tornado	tract 9602 (Very High, 99.3); tract 9603 (Very High, 98.6); tract 9601 (Very High, 98.3)
Wildfire	tract 9602 (Relatively Low, 79.5); tract 9601 (Relatively Low, 78.4); tract 9603 (Relatively Low, 71.7)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 9603 is Census Tract 9603). FEMA's Resilience Analysis and Planning Tool maps the National Risk Index for every tract: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

Supports FEMA checklist item B1-c: hazard extent

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

Sources: 6, 7

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	45 records, 1996 to 2026 (45 zone-level)	1 day to 5 days (median 2 days); 39 with a recorded value	5 consecutive days, 2024-01-12 to 2024-01-16, zone-level		Countywide (zone-level records).	Wind chill: in event narratives only (local data needed). Cold/ Wind Chill records from May to September (a frost night, not a cold wave) are counted but not used for the longest run.
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					Temperature: in event narratives only (local data needed).
Drought	U.S. Drought Monitor scale (D0 to D4)	10 records, 2012 to 2013 (10 zone-level)	274 days; 1 with a recorded value	274 days (about 9.0 months), 2012-07-24 to 2013-04-23, a run of 10 consecutive Storm Events drought records, zone-level		Countywide (zone-level records).	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	134 records, 1967 to 2026	0.75 in to 3 in (median 1 in); 134 with a recorded value	3 in hail, 2014-06-30	Hail, 1994-07-01, \$5,000 property; \$50,000 crops (1994 dollars)	Event records naming jurisdictions in the plan: Harlan city (26 records), Panama city (14 records), Defiance city (13 records), Irwin city (11 records), Earling city (10 records), Elk Horn city (8 records), Shelby city (8 records), Westphalia city (6 records), Portsmouth city (5 records), Tennant city (4 records); and 1 more jurisdiction (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	22 records, 1999 to 2026 (22 zone-level)	1 day to 13 days (median 2 days); 20 with a recorded value	13 consecutive days, 2001-07-28 to 2001-08-09, zone-level		Countywide (zone-level records).	Heat index: in event narratives only (local data needed).
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Ice Storm	Sperry-Piltz ice scale (local data)	3 records, 2007 to 2010 (3 zone-level)		No damage reported in 3 records.		Countywide (zone-level records).	Ice thickness: in event narratives only (local data needed).
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	5 records, 1996 to 2014 (1 zone-level)		Flash Flood, 2014-06-30, \$50,000 property; \$0 crops (2014 dollars)		Event records naming jurisdictions in the plan: Harlan city (3 records), Tennant city (1 record). Zone-level records (1) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.
Debris Flow	none (count and damage only)	0					Physical measure: in event narratives only (local data needed).
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	0					Storm Events lists lightning with damage or casualties; physical measure in event narratives only (local data needed).
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	25 records, 1996 to 2026 (25 zone-level)	35 kt (40 mph) to 58 kt (67 mph) (median 50 kt (58 mph)); 25 with a recorded value	58 kt (67 mph), measurement type not recorded, High Wind, 1996-10-26; NWS zone IAZ056	Strong Wind, 2012-04-15, \$40,000 property; \$0 crops, reported for the zone (2012 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	130 records, 1956 to 2025	50 kt (58 mph) to 83 kt (96 mph) (median 55 kt (63 mph)); 118 with a recorded value	83 kt (96 mph) estimated gust, Thunderstorm Wind, 2025-08-09	Thunderstorm Wind, 1999-06-09, \$400,000 property; crops not reported (1999 dollars)	Event records naming jurisdictions in the plan: Harlan city (43 records), Shelby city (12 records), Irwin city (8 records), Earling city (6 records), Portsmouth city (6 records), Defiance city (4 records), Elk Horn city (4 records), Panama city (4 records), Kirkman city (3 records), Tennant city (3 records); and 1 more jurisdiction (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	30 records, 1955 to 2024	F/EF0 to F/EF3 (median F/EF1); 28 with a recorded value	EF3 tornado, 2024-04-26, 25.56 mi within this county, 1,900 yd wide, damage not reported	Tornado, 1989-09-07, \$2,500,000 property; crops not recorded (1989 dollars)	Event records naming jurisdictions in the plan: Defiance city (6 records), Shelby city (3 records), Harlan city (2 records), Portsmouth city (2 records), Tennant city (2 records), Irwin city (1 record), Panama city (1 record), Westphalia city (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Wildfire	acres burned (local data)	0					Acres burned: in event narratives only (local data needed).
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	69 records, 1996 to 2026 (69 zone-level)		Heavy Snow, 1997-10-25, \$1,500,000 property; \$150,000 crops (1997 dollars); NWS zone IAZ056		Countywide (zone-level records).	Snow depth: in event narratives only (local data needed).

Where a hazard names more than 10 jurisdictions, the table lists the 10 with the most records; every one is in the Excel file, sheet "B1-c Extent".

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 20 declarations covering 17 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2024-05-24	2024-05-20	DR-4784-IA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$590,218.74	new since last plan; within last 5 years	
2024-05-14	2024-04-26	DR-4779-IA	Major disaster	Severe Storms and Tornadoes	Tornado	\$264,135.67	new since last plan; within last 5 years	
2020-03-23	2020-01-20	DR-4483-IA	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$79,896.04		
2020-03-13	2020-01-20	EM-3480-IA	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4483
2019-03-23	2019-03-12	DR-4421-IA	Major disaster	Severe Storms and Flooding	Inland Flooding	\$382,427.84		
2014-08-05	2014-06-26	DR-4187-IA	Major disaster	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding	Inland Flooding; Strong Wind; Tornado	\$215,791.24		
2010-07-29	2010-06-01	DR-1930-IA	Major disaster	Severe Storms, Flooding, and Tornadoes	Inland Flooding; Tornado	\$511,038.88		
2010-03-02	2010-01-19	DR-1880-IA	Major disaster	Severe Winter Storm	Winter Weather	\$70,306.65		
2010-02-25	2009-12-23	DR-1877-IA	Major disaster	Severe Winter Storms and Snowstorm	Winter Weather	\$37,895.64		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
2007-05-25	2007-05-05	DR-1705-IA	Major disaster	Severe Storms, Flooding, and Tornadoes	Inland Flooding; Tornado	\$656,719.29		
2007-03-30	2007-02-28	EM-3275-IA	Emergency	Snow	Winter Weather	\$65,621.43		
2005-09-10	2005-08-29	EM-3239-IA	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
2004-05-25	2004-05-19	DR-1518-IA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$94,063.58		
1998-07-02	1998-06-13	DR-1230-IA	Major disaster	Severe Storms, Tornadoes and Flooding	Inland Flooding (primary); also designated: Tornado	no Public Assistance recorded		
1996-08-21	1996-06-15	DR-1133-IA	Major disaster	Severe Storms, and Flooding	Inland Flooding	no Public Assistance recorded		
1993-07-09	1993-04-13	DR-996-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1991-12-26	1991-10-31	DR-928-IA	Major disaster	Ice Storm	Ice Storm	no Public Assistance recorded		
1990-05-26	1990-05-18	DR-868-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1972-09-26	1972-09-26	DR-354-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1965-04-22	1965-04-22	DR-193-IA	Major disaster	Flooding	Inland Flooding	no Public Assistance recorded		

School districts and special districts in this county: \$1,500 (included in the county total above). Public Assistance matched by applicant name to the school districts and special districts FEMA lists as plan participants in this county. They have no row of their own in the jurisdiction table, so their total is listed here. These dollars are already included in the county PA column of the declarations table (the FEMA record places each applicant in this county), so this line is not added to it.

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

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1962-09-05	1962-09-05	DR-133-IA	Major disaster	Floods	Inland Flooding
1961-03-31	1961-03-31	DR-111-IA	Major disaster	Floods	Inland Flooding
1958-07-05	1958-07-05	DR-86-IA	Major disaster	Floods	Inland Flooding
1954-06-23	1954-06-23	DR-17-IA	Major disaster	Flood	Inland Flooding
1953-06-11	1953-06-11	DR-8-IA	Major disaster	Flood	Inland Flooding

FEMA recorded these with designated area Statewide and no county, so they are listed on every county page in the state and not counted with county rows. Local data needed: whether each one affected this county.

Public Assistance not placed in any Iowa county: 11 rows, \$7,881,708.52; listed on the Iowa state page.

Source: 3

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Cold Wave	45	5	1	5	0	0	1996 to 2026-06-30	
Drought	10	0	0	0	0	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	134	9	0	9	0	0	1955 to 2026-06-30	
Heat Wave	22	10	0	10	0	0	1996 to 2026-06-30	
Hurricane	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Ice Storm	3	0	0	0	1	0	1996 to 2026-06-30	
Inland Flooding	5	0	0	0	12	1	1996 to 2026-06-30	
Landslide	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Lightning	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Strong Wind	155	23	1	23	1	0	1955 to 2026-06-30	Includes 22 High Wind and 3 Strong Wind records.
Tornado	30	7	0	7	7	2	1950 to 2026-06-30	
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	69	7	5	7	3	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2025-08-09	Thunderstorm Wind	83 kt (96 mph) estimated gust	\$0 property; \$0 crops (2025 dollars)	0, 0	DEFIANCE	new since last plan; within last 5 years	B1-c worst recorded: Thunderstorm Wind
2024-04-26	Tornado	EF3, 25.56 mi within this county, 1,900 yd wide	damage not reported	0, 0	SHELBY to DEFIANCE	new since last plan; within last 5 years	B1-c worst recorded: Tornado
2024-01-12	Extreme Cold/ Wind Chill		damage not reported	0, 0	NWS zone IAZ056 (SHELBY), zone-level	new since last plan; within last 5 years	B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2014-06-30	Flash Flood		\$50,000 property; \$0 crops (2014 dollars)	0, 0	HARLAN to TENNANT		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2014-06-30	Hail	3 in	\$0 property; \$0 crops (2014 dollars)	0, 0	HARLAN		B1-c worst recorded: Hail
2012-07-24	Drought		\$0 property; \$0 crops, reported for the zone (2012 dollars)	0, 0	NWS zone IAZ056 (SHELBY), zone-level		B1-c worst recorded: Drought
2009-02-09	High Wind	55 kt (63 mph) estimated gust	property not reported; \$0 crops, reported for the zone (2009 dollars)	0, 1	NWS zone IAZ056 (SHELBY), zone-level		deaths or injuries recorded
2001-07-28	Heat		damage not reported	0, 0	NWS zone IAZ056 (SHELBY), zone-level		B1-c worst recorded: Excessive Heat, Heat
1997-10-25	Heavy Snow		\$1,500,000 property; \$150,000 crops, reported for the zone (1997 dollars)	0, 0	NWS zone IAZ056 (SHELBY), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
1996-10-26	High Wind	58 kt (67 mph), measurement type not recorded	damage not reported	0, 0	NWS zone IAZ056 (SHELBY), zone-level		B1-c worst recorded: High Wind and Strong Wind
1994-07-01	Hail	0.75 in	\$5,000 property; \$50,000 crops (1994 dollars)	0, 0	location not recorded		B1-c most damaging: Hail
1989-09-07	Tornado	F1, 5 mi path length (whole path, pre-1996), 50 yd wide	\$2,500,000 property; crops not recorded (1989 dollars)	0, 0	location not recorded		B1-c most damaging: Tornado

The full list is in the Excel file, sheet "B1-d Storm Events history" (473 rows).

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

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

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

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

Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Cold Wave	5.89	event-days per year	about 5.89 days per year	Likely (from Storm Events: 21 of 30 years)	event-days in 21 of 30 years, 1996 to 2025 (70%)	112	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	7.65	event-days per year	about 7.65 days per year	Possible (from Storm Events: 2 of 30 years)	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	252	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.000428	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0428%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	6.16	events per year	about 6.16 per year	Highly likely	FEMA annualized frequency (modeled)	233.9 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	6	event-days per year	about 6 days per year	Likely (from Storm Events: 9 of 30 years)	event-days in 9 of 30 years, 1996 to 2025 (30%)	86	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0	events per year	none modeled	Unlikely	FEMA annualized frequency (modeled)	0	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.898	event-days per year	about 0.898 days per year	Likely (from Storm Events: 3 of 30 years)	event-days in 3 of 30 years, 1996 to 2025 (10%)	61	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.143	event-days per year	about 0.143 days per year	Likely (from Storm Events: 4 of 30 years)	event-days in 4 of 30 years, 1996 to 2025 (13.3%)	4	1996 to 2023 (28 years)	see B1-f	
Landslide	0.385	events per year (modeled)	about 1 in 3 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	44.1	days per year with a strike	about 44.1 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	4.7	events per year	about 4.7 per year	Highly likely	FEMA annualized frequency (modeled)	179	1986 to 2023 (38 years)	countywide	

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Tornado	0.503	events per year	about 0.5 per year	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Wildfire	0.000855	annual probability at a location	chance a given location in the county burns in a year: 0.0855%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Winter Weather	13.8	event-days per year	about 13.8 days per year	Likely (from Storm Events: 25 of 30 years)	event-days in 25 of 30 years, 1996 to 2025 (83.3%)	263	2005-11-12 to 2024-11-12 (19 years)	countywide	

FEMA annualized frequency (modeled) is the National Risk Index v1.20 (December 2025) estimate of how often a hazard affects this county in a year; it is not recorded events divided by years, and its unit differs by hazard (events, event-days, or days with a lightning strike per year). For earthquake, wildfire, coastal flooding and tsunami the value is the chance (or number of events) at a location in the county, not across the county, so no "1 in N years" is given and the descriptor comes from Storm Events where it has a record (none for earthquake). The Methods page gives each hazard's method, from FEMA's National Risk Index Technical Documentation v1.20.

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

Descriptor scale used in this packet (defined per unit)

Sources: 5, 6

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

Intensity bands: historical frequency (Storm Events)

Source: 6

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Hail	1.00-1.99 in	1996 to 2025	53	30	1.77
Hail	2.00 in+	1996 to 2025	4	30	0.133
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	85	30	2.83
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	22	30	0.733
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	0	30	0
Tornado	EF0-1	1996 to 2025	14	30	0.467
Tornado	EF2-3	1996 to 2025	1	30	0.0333
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	1	30	0.0333

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Cold Wave	4 of 4	88.0	93.5	96.7	Very High 1, Relatively High 3
Drought	4 of 4	94.3	96.7	99.0	Relatively High 2, Relatively Moderate 2
Earthquake	4 of 4	7.2	13.0	14.9	Very Low 4
Hail	4 of 4	93.1	96.7	99.2	Very High 2, Relatively High 2
Heat Wave	4 of 4	59.8	69.4	77.4	Relatively Moderate 4
Hurricane	0 of 4				No Rating 4
Ice Storm	4 of 4	76.9	84.3	89.1	Relatively Moderate 4
Inland Flooding	4 of 4	38.1	73.5	81.2	Relatively High 2, Relatively Moderate 1, Relatively Low 1
Landslide	4 of 4	85.7	90.9	97.2	Relatively Moderate 2, Relatively Low 2
Lightning	4 of 4	38.5	47.5	56.9	Relatively Moderate 2, Relatively Low 2
Strong Wind	4 of 4	89.8	95.4	98.2	Very High 2, Relatively High 2

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	4 of 4	95.7	98.4	99.3	Very High 4
Wildfire	4 of 4	69.7	75.0	79.5	Relatively Low 4
Winter Weather	4 of 4	76.9	84.4	89.5	Relatively High 3, Relatively Moderate 1

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

Hail: Agriculture is 57% of NRI's expected annual loss for this hazard in the county, so the tract range mostly reflects where crop and livestock value is.

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

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

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

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
Shelby County	County	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 1	\$16,603.70	0 total; 0 since its plan	Includes \$16,603.70 for declarations not counted as hazard incidents (DR-4483-IA).
Defiance city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$10,096.80	23 total; 4 since its plan	
Earling city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$20,942.61	16 total; 0 since its plan	
Elk Horn city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	12 total; 1 since its plan	
Harlan city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$115,753.52	74 total; 12 since its plan	
Irwin city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$19,523.44	20 total; 1 since its plan	
Kirkman city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	6 total; 1 since its plan	
Panama city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$3,046.07	19 total; 1 since its plan	
Portsmouth city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$590,218.74	13 total; 1 since its plan	
Shelby city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	\$22,163.38	23 total; 5 since its plan	Includes \$3,551.47 for declarations not counted as hazard incidents (DR-4483-IA).
Tennant city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	10 total; 2 since its plan	
Westphalia city	City	Approved, expires 2026-10-26	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	9 total; 3 since its plan	

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

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

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

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

Local data needed

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

- Critical facilities and lifelines per hazard

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

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

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

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2021-10-26 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Cold Wave	\$3,959,969,020	\$393,221,999	11,738	\$1,596	\$308,093	\$1,468,301	under 0.0001%		\$0		
Drought	n/a	\$192,319,989	n/a	n/a	\$1,383,176	n/a	0.719% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$6,671,078,405	n/a	11,746	\$9,274	n/a	\$2,517	0.000139%				
Hail	\$3,959,975,416	\$393,221,999	11,738	\$410,269	\$741,236	\$142,071	0.0104%	\$0			
Heat Wave	\$3,959,969,020	\$393,221,999	11,738	\$4,566	\$7	\$296,694	0.000115%		\$0		
Hurricane	\$3,959,975,416	\$393,221,999	11,738	\$0	\$0	\$0	0%				
Ice Storm	\$3,959,969,020	n/a	11,738	\$80,514	n/a	\$8,207	0.00203%				
Inland Flooding	\$3,958,158,141	\$19,065,361	171	\$3,770,855	\$21,819	\$159	n/a (see note)			\$590,218.74	NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b.
Landslide	\$73,496,181	n/a	219	\$446	n/a	\$10,245	0.000607%				
Lightning	\$3,959,975,416	n/a	11,738	\$6,268	n/a	\$39,511	0.000158%				
Strong Wind	\$3,959,975,416	\$393,221,999	11,738	\$241,578	\$209,559	\$246,614	0.0061%	\$0	\$0		
Tornado	\$3,959,975,416	\$393,221,999	11,738	\$1,218,148	\$10,978	\$1,953,539	0.0308%			\$854,354.41	
Wildfire	\$494,109,193	\$46,963,875	1,865	\$10,858	\$354	\$1,704	0.0022%				
Winter Weather	\$3,959,969,020	\$393,221,999	11,738	\$23,686	\$524	\$24,790	0.000598%		\$0		

Totals since 2021-10-26 (Storm Events through 2026-06-30): 33 county-coded records, 5 with a damage value recorded (including \$0), \$0; 28 zone-level records, 22 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: \$854,354.41 on 2 counted declarations.

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

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

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

County context

Source: 5

Measure	Value
Population	11,738
Building value (total, not at risk)	\$3,959,975,416
Agriculture value (total, not at risk)	\$393,221,999
NRI risk rating (all hazards)	Very Low
Expected annual loss, buildings and agriculture, all hazards	\$8,453,805
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)	\$4,194,353
Social vulnerability rating	Very Low
Community resilience rating	Very High
NRI version	December 2025

FEMA's all-hazard expected annual loss adds buildings, agriculture and population equivalence; this table gives the property part and the population-equivalence part as separate rows.

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

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	0
Repetitive loss, NFIP insurance definition	1	Severe repetitive loss, NFIP insurance definition	0

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

Repeat-flood properties: county and state-level rows

Sources: 1, 4

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
County total	0	0	1	0	1	0	0
of which: Shelby County (unincorporated area)	0	0	1	0	1	0	0
Statewide, no county in FEMA's file	0	0	1	0	1	0	0

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

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

Sources: 1, 4

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
Shelby County	190905	0	0	1	0	1	0	0
Defiance city	190246	0	0	0	0	0	0	0
Earling city	190247	0	0	0	0	0	0	0
Elk Horn city	190575	0	0	0	0	0	0	0
Harlan city	190248	0	0	0	0	0	0	0
Irwin city	190249	0	0	0	0	0	0	0
Kirkman city	190250	0	0	0	0	0	0	0
Panama city	190251	0	0	0	0	0	0	0
Portsmouth city	190507	0	0	0	0	0	0	0
Shelby city	190656	0	0	0	0	0	0	0
Tennant city	190985	0	0	0	0	0	0	0
Westphalia city	190986	0	0	0	0	0	0	0

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

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

County repeat-flood properties by occupancy group

Sources: 1, 4

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	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	1	0	1	0	0
not reported	0	0	0	0	0	0	0

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

FMA RL and FMA SRL are the Flood Mitigation Assistance definitions (44 CFR 77.2), the ones the FEMA Local Mitigation Planning Policy Guide cites. NFIP repetitive loss (the FEMA insurance definition) is 2 or more claims over \$1,000 in 10 years, and a property can leave that group once it is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured. The Methods page gives the OpenFEMA field details.

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

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 1 property is NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
 2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
 3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
 4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
 5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
 6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
 7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
 8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_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_elsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scscd_national.zip, https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)
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What this packet is and what the plan adds

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

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

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

OpenFEMA disclaimer

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

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

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