

Cass County, MN

Risk-assessment baseline packet

County FIPS: 27021 Release: 2026-10 Data as of: 2026-09-30 Storm Events data through: 2026-06-30

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Summary

Plan status as of 2026-09-30: Approved, expires 2027-06-23. Plan: Cass County (FEMA plan 108229), approved 2022-06-24.

Since the plan was approved on 2022-06-24: 3 new hazard declarations (3 incidents) and 117 NOAA Storm Events records; details under "What changed since your last plan".

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$7,850,726 a year), Cold Wave (\$3,715,976) and Tornado (\$762,088).

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; 27021 is this area.

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

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

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

CFR: Code of Federal Regulations.

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

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

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Plan clock

Status:	Approved, expires 2027-06-23	Plan:	Cass County (FEMA plan 108229)
Approved:	2022-06-24	Days to expiry:	266
Update underway:	none recorded in FEMA's plan tracker		

What changed since your last plan (approved 2022-06-24)

New federal declarations:	3 new hazard declarations (3 incidents): DR-4658-MN (Severe Storms, Straight-Line Winds, Tornadoes, and Flooding), DR-4666-MN (Severe Storms, Straight-Line Winds, Tornadoes, and Flooding), DR-4797-MN (Severe Storms and Flooding)	Storm Events records since approval:	117 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 0	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: 16 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	Update underway	Notes
						negative = days since expiry		
Cass County	County	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Backus city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Bena city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Boy River city	City	Plan 108229 approved 2022-06-24, pending adoption here; not yet eligible	Cass County (FEMA plan 108229), pending adoption here	2022-06-24 by FEMA; not yet adopted here	2027-06-23 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Cass Lake city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Chickamaw Beach city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
East Gull Lake city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Federal Dam city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Hackensack city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Lake Shore city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Longville city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Motley city	City	Approved, expires 2028-06-08	Morrison County (FEMA plan 108911)	2023-06-09	2028-06-08	617		Also approved under plan 108229 (Cass County, expires 2027-06-23). 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.
Pillager city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Pine River city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Remer city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		
Walker city	City	Approved, expires 2027-06-23	Cass County (FEMA plan 108229)	2022-06-24	2027-06-23	266		

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>	Why this hazard can be left out <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
1	Inland Flooding	Relatively Low	Relatively Low	\$7,850,722	\$4	under \$1	\$7,850,726	5		
2	Cold Wave	Relatively Moderate	Relatively Moderate	\$2,536	\$72	\$3,713,368	\$3,715,976	55		
3	Tornado	Relatively Low	Relatively Low	\$643,381	\$953	\$117,755	\$762,088	11		
4	Strong Wind	Relatively Moderate	Relatively Moderate	\$108,327	\$5,449	\$489,285	\$603,061	227		Includes 1 High Wind and 1 Strong Wind records (NOAA non- thunderstorm wind types, outside NRI's Strong Wind definition).
5	Heat Wave	Relatively Low	Relatively Low	\$947	under \$1	\$312,543	\$313,490	2		
6	Lightning	Relatively Low	Relatively Low	\$25,690	n/a	\$187,209	\$212,899	4		
7	Winter Weather	Relatively Moderate	Relatively Moderate	\$95,629	\$191	\$54,136	\$149,956	102		
8	Hail	Very Low	Very Low	\$56,257	\$25,421	\$26,596	\$108,274	246		
9	Drought	Relatively Low	Relatively Low	n/a	\$88,445	n/a	\$88,445	47		
10	Wildfire	Very Low	Very Low	\$72,575	\$99	\$10,239	\$82,912	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
11	Ice Storm	Very Low	Very Low	\$13,316	n/a	\$2,869	\$16,185	8		
12	Landslide	Relatively Low	Relatively Low	\$2,021	n/a	\$11,036	\$13,057	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Why this hazard can be left out <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
13	Earthquake	Very Low	Very Low	\$3,411	n/a	\$652	\$4,063			Storm Events does not record earthquakes.
	Hurricane	Not Applicable	Not Applicable					0	NRI rates hurricane Not Applicable for this county, and no counted federal declaration for this county names it (EM-3242-MN names it but is not counted as a local occurrence; see B1-d).	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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 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 9607 (Very Low, 5.2); tract 9400.01 (Very Low, 5.1); tract 9400.02 (Very Low, 4.1)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 9400.01 (Relatively Moderate, 97.2); tract 9602 (Relatively Low, 95.1); tract 9601 (Relatively Low, 92.3)
Tornado	tract 9400.01 (Relatively Moderate, 72.7); tract 9607 (Relatively Moderate, 62.8); tract 9606 (Relatively Moderate, 56.9)
Wildfire	tract 9607 (Relatively Low, 87.8); tract 9608.03 (Relatively Low, 85.9); tract 9608.01 (Relatively Low, 85.0)

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 9607 is Census Tract 9607). 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	55 records, 1997 to 2026 (55 zone-level)	1 day to 4 days (median 2 days); 44 with a recorded value	4 consecutive days, 2021-02-12 to 2021-02-15, zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					
Drought	U.S. Drought Monitor scale (D0 to D4)	47 records, 2006 to 2026 (47 zone-level)	15 days to 297 days (median 122 days); 10 with a recorded value	297 days (about 9.8 months), 2023-07-18 to 2024-05-09, a run of 12 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)	265 records, 1959 to 2026	0.75 in to 3 in (median 1 in); 265 with a recorded value	3 in hail, 2021-07-26	Hail, 2010-06-17, \$15,000 property; crops not reported (2010 dollars)	Event records naming jurisdictions in the plan: Pillager city (27 records), Backus city (23 records), Longville city (21 records), Walker city (19 records), Pine River city (17 records), Bena city (14 records), Hackensack city (14 records), Remer city (8 records), Cass Lake city (6 records), Federal Dam city (6 records); and 4 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	2 records, 2011 to 2016 (2 zone-level)	1 day to 5 days (median 3 days); 2 with a recorded value	5 consecutive days, 2011-07-16 to 2011-07-20, zone-level		Countywide (zone-level records).	
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.
Ice Storm	Sperry-Piltz ice scale (local data)	8 records, 1997 to 2013 (8 zone-level)		No damage reported in 8 records.		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	5 records, 1997 to 2024 (1 zone-level)		Flood, 2012-06-20, \$300,000 property; \$0 crops (2012 dollars)		Event records naming jurisdictions in the plan: Longville city (2 records). 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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	4 records, 2015 to 2025		Lightning, 2015-07-28, \$155,000 property; crops not reported (2015 dollars)		Event records naming jurisdictions in the plan: Chickamaw Beach city (1 record).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	2 records, 1997 to 2010 (2 zone-level)	49 kt (56 mph) to 61 kt (70 mph) (median 55 kt (63 mph)); 2 with a recorded value	61 kt (70 mph), measurement type not recorded, High Wind, 1997-09-01; NWS zone MNZ025	Strong Wind, 2010-05-22, \$750 property; crops not reported (zone total, 2010 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	263 records, 1970 to 2026	50 kt (58 mph) to 90 kt (104 mph) (median 52 kt (60 mph)); 226 with a recorded value	90 kt (104 mph) estimated gust, Thunderstorm Wind, 2015-07-12	Thunderstorm Wind, 2022-05-30, \$50,000 property; \$0 crops (2022 dollars)	Event records naming jurisdictions in the plan: Remer city (18 records), Cass Lake city (16 records), Pillager city (16 records), Walker city (16 records), Bena city (15 records), Pine River city (15 records), Longville city (14 records), Hackensack city (11 records), Backus city (10 records), Federal Dam city (7 records); and 3 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	28 records, 1964 to 2025	F/EF0 to F/EF4 (median F/EF1); 28 with a recorded value	F4 tornado, 1969-08-06, 12.3 mi path length (whole path, pre-1996), 833 yd wide, \$2,500,000 property; crops not recorded (1969 dollars), 12 direct deaths, 70 direct injuries		Event records naming jurisdictions in the plan: Bena city (2 records), East Gull Lake city (1 record), Pillager city (1 record), Remer 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).
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	102 records, 1996 to 2026 (102 zone-level)		No damage reported in 102 records.		Countywide (zone-level records).	

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".

In event narratives only (local data needed): wind chill, temperature, heat index, ice thickness, acres burned and snow depth; any physical measure of debris flow and lightning.

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records from zones that 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: 14 declarations covering 11 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
2024-06-28	2024-06-16	DR-4797-MN	Major disaster	Severe Storms and Flooding	Inland Flooding	\$351,597.02	new since last plan; within last 5 years	
2022-08-09	2022-05-29	DR-4666-MN	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, and Flooding	Inland Flooding; Strong Wind; Tornado	\$37,548.45	new since last plan; within last 5 years	
2022-07-08	2022-05-08	DR-4658-MN	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, and Flooding	Inland Flooding; Strong Wind; Tornado	\$112,158.46	new since last plan; within last 5 years	
2020-04-07	2020-01-20	DR-4531-MN	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$38,723.44		
2020-03-13	2020-01-20	EM-3453-MN	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4531
2018-09-05	2018-06-15	DR-4390-MN	Major disaster	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding	Inland Flooding (primary); also designated: Strong Wind, Tornado	\$237,306.22		
2012-07-06	2012-06-14	DR-4069-MN	Major disaster	Severe Storms and Flooding	Inland Flooding	\$166,099.78		
2005-09-13	2005-08-29	EM-3242-MN	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
1999-07-28	1999-07-04	DR-1283-MN	Major disaster	Severe Storms, Winds, and Flooding	Inland Flooding	\$802,084.10		
1997-04-08	1997-03-21	DR-1175-MN	Major disaster	Severe Flooding, High Winds, Severe Storms	Inland Flooding (primary); also designated: Strong Wind	no Public Assistance recorded		
1995-08-18	1995-07-09	DR-1064-MN	Major disaster	Severe Thunderstorms, Winds, Flooding, Tornadoes, and Heat	Inland Flooding; Tornado	no Public Assistance recorded		
1976-06-17	1976-06-17	EM-3013-MN	Emergency	Drought	Drought	no Public Assistance recorded		
1966-03-22	1966-03-22	DR-215-MN	Major disaster	Flooding	Inland Flooding	no Public Assistance recorded		
1965-04-11	1965-04-11	DR-188-MN	Major disaster	Flooding	Inland Flooding	no Public Assistance recorded		

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

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1957-06-22	1957-06-22	DR-80-MN	Major disaster	Floods	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.

7 Fire Management declarations (1976-09-08 to 1976-10-01) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

Public Assistance filed under this county for declarations that do not list it: 5 rows, \$44,966.69

Sources: 2, 3

FEMA number	Declared	Title	Applicant	PA obligated <i>federal share obligated, nominal dollars</i>
DR-4182-MN	2014-07-21	Severe Storms, Straight-Line Winds, Flooding, Landslides, and Mudslides	Bartlett, Township of	\$13,068.75
DR-1830-MN	2009-04-09	Severe Storms and Flooding	SUGAR BUSH, TOWNSHIP OF	\$9,693.86
DR-1830-MN	2009-04-09	Severe Storms and Flooding	LAKEPORT, TOWNSHIP OF	\$5,219.60
DR-1370-MN	2001-05-16	Severe Winter Storms, Flooding, and Tornadoes	DO NOT USE EAGLE VALLEY (TOWNSHIP OF)	\$11,234.25
DR-1370-MN	2001-05-16	Severe Winter Storms, Flooding, and Tornadoes	Bartlett, Township of	\$5,750.23

FEMA's Public Assistance summaries file these applicants under this county, but FEMA's declaration rows for these disasters do not designate it (an electric cooperative or district serving several counties, for example). Not in any declaration row above and not counted.

Public Assistance not placed in any Minnesota county: 14 rows, \$9,133,931.59; listed on the Minnesota 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	55	6	9	15	0	0	1996 to 2026-06-30	
Drought	47	19	6	22	1	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	265	41	25	61	0	0	1955 to 2026-06-30	
Heat Wave	2	0	0	0	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

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
Ice Storm	8	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	5	1	0	1	10	3	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	4	1	0	1	0	0	1996 to 2026-06-30	
Strong Wind	265	29	24	53	4	2	1955 to 2026-06-30	Includes 1 High Wind and 1 Strong Wind records.
Tornado	28	1	2	3	4	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	102	19	6	25	0	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
2023-07-18	Drought		\$0 property; \$0 crops (zone total, 2023 dollars)	0, 0	NWS zone MNZ025 (NORTHERN CASS), zone-level	new since last plan; within last 5 years	B1-c worst recorded: Drought
2022-05-30	Thunderstorm Wind	55 kt (63 mph) estimated gust	\$50,000 property; \$0 crops (2022 dollars)	0, 0	BACKUS	in the 12 months before plan approval; within last 5 years	B1-c most damaging: Thunderstorm Wind
2021-07-26	Hail	3 in	\$0 property; \$0 crops (2021 dollars)	0, 0	BENA	in the 12 months before plan approval	B1-c worst recorded: Hail
2021-02-12	Extreme Cold/ Wind Chill		\$0 property; \$0 crops (zone total, 2021 dollars)	0, 0	NWS zone MNZ025 (NORTHERN CASS), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2015-07-28	Lightning		\$155,000 property; crops not reported (2015 dollars)	0, 0	CHICKAMAW BEACH		B1-c worst recorded: Lightning
2015-07-12	Thunderstorm Wind	90 kt (104 mph) estimated gust	damage not reported	0, 0	GULL LAKE		B1-c worst recorded: Thunderstorm Wind
2012-06-20	Flood		\$300,000 property; \$0 crops (2012 dollars)	0, 0	LONGVILLE to PINE RIVER MUNI ARPT		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2011-07-16	Heat		\$0 property; \$0 crops (zone total, 2011 dollars)	0, 0	NWS zone MNZ033 (SOUTHERN CASS), zone-level		B1-c worst recorded: Excessive Heat, Heat
2000-08-14	Thunderstorm Wind	60 kt (69 mph) estimated	damage not reported	1, 0	OUTING		deaths or injuries recorded
1997-09-01	High Wind	61 kt (70 mph), measurement type not recorded	damage not reported	0, 0	NWS zone MNZ025 (NORTHERN CASS), zone-level		B1-c worst recorded: High Wind and Strong Wind
1991-07-05	Tornado	F1, 0.3 mi path length (whole path, pre-1996), 10 yd wide	damage not recorded (pre-1996 record)	1, 0	location not recorded		deaths or injuries recorded
1969-08-06	Tornado	F4, 12.3 mi path length (whole path, pre-1996), 833 yd wide	\$2,500,000 property; crops not recorded (1969 dollars)	12, 70	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (781 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	15.7	event-days per year	about 15.7 days per year	Likely	Storm Events event- days in 18 of 30 years, 1996 to 2025 (60%)	299	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	13.3	event-days per year	about 13.3 days per year	Likely	Storm Events event- days in 11 of 30 years, 1996 to 2025 (36.7%)	427	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.000104	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0104%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	2.48	events per year	about 2.48 per year	Highly likely	FEMA annualized frequency (modeled)	93.7 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	1.19	event-days per year	about 1.19 days per year	Possible	Storm Events event- days in 2 of 30 years, 1996 to 2025 (6.67%)	18.3	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane		events per year					1851 to 2024 (Atlantic)	see B1-f	Not Applicable in NRI for this county; no descriptor.
Ice Storm	0.128	event-days per year	about 0.128 days per year	Likely	Storm Events event- days in 8 of 30 years, 1996 to 2025 (26.7%)	8	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	Storm Events event- days in 5 of 30 years, 1996 to 2025 (16.7%)	4	1996 to 2023 (28 years)	see B1-f	
Landslide	0.522	events per year (modeled)	about 0.52 per year	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	29.4	days per year with a strike	about 29.4 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	1.61	events per year	about 1.61 per year	Highly likely	FEMA annualized frequency (modeled)	61	1986 to 2023 (38 years)	countywide	
Tornado	0.588	events per year	about 0.59 per year	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	

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
Wildfire	0.000597	annual probability at a location	chance a given location in the county burns in a year: 0.0597%		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	17.1	event-days per year	about 17.1 days per year	Highly likely	Storm Events event- days in 28 of 30 years, 1996 to 2025 (93.3%)	325	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	136	30	4.53
Hail	2.00 in+	1996 to 2025	14	30	0.467
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	207	30	6.9
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	10	30	0.333
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	0	30	0
Tornado	EF0-1	1996 to 2025	11	30	0.367
Tornado	EF2-3	1996 to 2025	0	30	0
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Cold Wave	11 of 11	78.5	89.7	97.9	Very High 3, Relatively High 8
Drought	11 of 11	75.7	83.1	92.7	Relatively Moderate 1, Relatively Low 8, Very Low 2
Earthquake	11 of 11	1.1	2.8	5.2	Very Low 11
Hail	11 of 11	46.7	56.5	74.2	Relatively Moderate 1, Relatively Low 10
Heat Wave	11 of 11	14.8	42.0	71.9	Relatively Moderate 2, Relatively Low 8, Very Low 1
Hurricane	0 of 11				Not Applicable 11
Ice Storm	11 of 11	2.1	19.4	49.2	Relatively Low 2, Very Low 9
Inland Flooding	11 of 11	39.8	59.2	88.8	Relatively High 3, Relatively Moderate 6, Relatively Low 2
Landslide	11 of 11	86.2	92.1	97.2	Relatively Moderate 1, Relatively Low 10
Lightning	11 of 11	45.3	64.6	88.7	Relatively High 3, Relatively Moderate 7, Relatively Low 1
Strong Wind	11 of 11	64.7	81.6	93.7	Relatively High 4, Relatively Moderate 7

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	11 of 11	43.1	53.2	72.7	Relatively Moderate 5, Relatively Low 6
Wildfire	11 of 11	69.8	83.0	87.8	Relatively Low 11
Winter Weather	11 of 11	79.3	86.2	96.9	Very High 1, Relatively High 10

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

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

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

Frequency data for 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
Cass County	County	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	\$38,440.77	0 total; 0 since its plan	
Backus city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	33 total; 9 since its plan	
Bena city	City	Approved, expires 2027-06-23		no Public Assistance recorded	31 total; 6 since its plan	No NFIP community ID on this jurisdiction's plan row.
Boy River city	City	Plan 108229 approved 2022-06-24, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	5 total; no approved plan	
Cass Lake city	City	Approved, expires 2027-06-23		\$13,784.25	22 total; 3 since its plan	No NFIP community ID on this jurisdiction's plan row.
Chickamaw Beach city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	3 total; 0 since its plan	
East Gull Lake city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	11 total; 1 since its plan	
Federal Dam city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	13 total; 6 since its plan	
Hackensack city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	25 total; 1 since its plan	
Lake Shore city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	\$4,834.81	1 total; 0 since its plan	
Longville city	City	Approved, expires 2027-06-23		no Public Assistance recorded	37 total; 2 since its plan	No NFIP community ID on this jurisdiction's plan row.

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place	Notes
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	<i>all years; since its plan</i>	
Motley city	City	Approved, expires 2028-06-08	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	1 total; 0 since its plan	Also approved under plan 108229 (Cass County, expires 2027-06-23). 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.
Pillager city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	44 total; 8 since its plan	
Pine River city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	32 total; 2 since its plan	
Remer city	City	Approved, expires 2027-06-23	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	27 total; 1 since its plan	
Walker city	City	Approved, expires 2027-06-23		\$35,748	35 total; 5 since its plan	No NFIP community ID on this jurisdiction's plan row.

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

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 modeled dollars	Agriculture exposure modeled dollars	Population exposed people	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	Cost of expected deaths and injuries FEMA's dollar value per year, not property damage	EAL as % of exposure buildings; agriculture where noted	Storm Events damage since 2022-06-24 county-coded records, property plus crops, nominal dollars	Zone-level damage since plan property plus crops, reported for the zone	Public Assistance since plan nominal dollars; see note	Note
Cold Wave	\$10,256,315,639	\$34,078,953	30,036	\$2,536	\$72	\$3,713,368	under 0.0001%		\$0		
Drought	n/a	\$8,903,155	n/a	n/a	\$88,445	n/a	0.993% (agriculture)		\$0		NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$17,118,489,828	n/a	30,066	\$3,411	n/a	\$652	under 0.0001%				
Hail	\$10,256,315,639	\$34,078,953	30,036	\$56,257	\$25,421	\$26,596	0.000549%	\$0			
Heat Wave	\$10,256,315,639	\$34,078,953	30,036	\$947	under \$1	\$312,543	under 0.0001%				
Hurricane											Not Applicable in NRI for this county
Ice Storm	\$10,236,867,752	n/a	29,955	\$13,316	n/a	\$2,869	0.00013%				
Inland Flooding	\$10,179,135,865	\$1,708	3	\$7,850,722	\$4	under \$1	n/a (see note)	\$0		\$501,303.93	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	\$245,459,347	n/a	563	\$2,021	n/a	\$11,036	0.000823%				
Lightning	\$10,256,315,639	n/a	30,036	\$25,690	n/a	\$187,209	0.00025%	\$100,000			
Strong Wind	\$10,256,315,639	\$34,078,953	30,036	\$108,327	\$5,449	\$489,285	0.00106%	\$0		\$149,706.91	
Tornado	\$10,256,315,639	\$34,078,953	30,036	\$643,381	\$953	\$117,755	0.00627%	\$0		\$149,706.91	

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2022-06-24 <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
Wildfire	\$2,219,731,708	\$22,037,194	12,881	\$72,575	\$99	\$10,239	0.00327%				
Winter Weather	\$10,256,315,639	\$34,078,953	30,036	\$95,629	\$191	\$54,136	0.000932%		\$0		

Totals since 2022-06-24 (Storm Events through 2026-06-30): 73 county-coded records, 73 with a damage value recorded (including \$0), \$100,000; 44 zone-level records, 44 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: \$501,303.93 on 3 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	30,036
Building value (total, not at risk)	\$10,256,315,639
Agriculture value (total, not at risk)	\$34,078,953
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$8,995,444
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)	\$4,925,688
Social vulnerability rating	Relatively High
Community resilience rating	Relatively 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	0	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 total and NFIP communities

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	0	0	0	0	0

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>
Cass County	270631	0	0	0	0	0	0	0
Backus city	270709	0	0	0	0	0	0	0
Boy River city	270057	0	0	0	0	0	0	0
Chickamaw Beach city	270058	0	0	0	0	0	0	0
East Gull Lake city	270059	0	0	0	0	0	0	0
Federal Dam city	270060	0	0	0	0	0	0	0
Hackensack city	270061	0	0	0	0	0	0	0
Lake Shore city	270062	0	0	0	0	0	0	0
Motley city	270300	0	0	0	0	0	0	0
Pillager city	270063	0	0	0	0	0	0	0
Pine River city	270064	0	0	0	0	0	0	0
Remer city	270065	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: 0 in every occupancy group.

Sources: 1, 4

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 0 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

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3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
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6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)

What this packet is and what the plan adds

This packet is the federal data for the plan's risk assessment (the summary on page 1 says how it is organized); the plan and FEMA's review decide whether each item is met.

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

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

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