

Washington County, MN

Risk-assessment baseline packet

County FIPS: 27163 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 2028-11-09. Plan: Washington County Update (FEMA plan 109297), approved 2023-11-10.

Since the plan was approved on 2023-11-10: no new hazard declaration and 51 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 (\$41,450,744 a year), Tornado (\$19,505,169) and Strong Wind (\$10,608,899).

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; 27163 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 2028-11-09	Plan:	Washington County Update (FEMA plan 109297)
Approved:	2023-11-10	Days to expiry:	771
What changed since your last plan (approved 2023-11-10)			
New federal declarations:	none	Storm Events records since approval:	51 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 3, SRL 10 (44 CFR 77.2); any definition: 69	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: 38 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 negative = days since expiry	Notes
Washington County	County	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	
Afton city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Bayport city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Birchwood Village city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Cottage Grove city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Dellwood city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Forest Lake city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Grant city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Hastings city	City	Approved, expires 2028-04-19	Dakota County (FEMA plan 108460)	2023-04-20	2028-04-19	567	this jurisdiction approved 2023-05-04
Hugo city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Lake Elmo city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Lake St. Croix Beach city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Lakeland city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Lakeland Shores city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Landfall city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Mahtomedi city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Marine on St. Croix city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Newport city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Oak Park Heights city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Notes
						negative = days since expiry	
Oakdale city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Pine Springs city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Scandia city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
St. Marys Point city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
St. Paul Park city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Stillwater city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
White Bear Lake city	City	Approved, expires 2030-06-03	Ramsey County 2025 Hazard Mitigation Plan (FEMA plan 110554)	2025-06-04	2030-06-03	1,342	this jurisdiction approved 2025-10-15
Willernie city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Woodbury city	City	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Baytown township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Denmark township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Grey Cloud Island township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
May township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
Stillwater township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2023-12-05
West Lakeland township	Township	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-01-03
Brown's Creek Watershed District	Water/Sewer Authority	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Comfort Lake-Forest Lake Watershed District	Water/Sewer Authority	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
South Washington Watershed District	Water/Sewer Authority	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-03-14
Valley Branch Watershed District	Water/Sewer Authority	Approved, expires 2028-11-09	Washington County Update (FEMA plan 109297)	2023-11-10	2028-11-09	771	this jurisdiction approved 2024-09-25

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 Moderate	Relatively Moderate	\$41,419,681	\$4,618	\$26,446	\$41,450,744	13		
2	Tornado	Relatively High	Relatively High	\$8,533,591	\$1,153	\$10,970,425	\$19,505,169	19		
3	Strong Wind	Very High	Very High	\$6,381,349	\$54,843	\$4,172,708	\$10,608,899	138		Includes 7 High Wind and 3 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
4	Cold Wave	Relatively Moderate	Relatively High	\$193	\$2,015	\$10,462,166	\$10,464,374	20		Includes 1 Frost/Freeze record (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
5	Hail	Relatively High	Relatively High	\$4,690,256	\$88,202	\$308,373	\$5,086,830	182		
6	Heat Wave	Relatively Moderate	Relatively Moderate	\$4,884	\$1	\$2,758,668	\$2,763,553	14		
7	Lightning	Relatively High	Relatively High	\$84,629	n/a	\$1,868,011	\$1,952,640	11		
8	Winter Weather	Relatively Moderate	Relatively High	\$34,709	\$440	\$284,145	\$319,295	118		
9	Ice Storm	Relatively Moderate	Relatively Moderate	\$239,342	n/a	\$70,249	\$309,591	2		

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
10	Wildfire	Relatively Low	Relatively Low	\$181,433	\$53	\$20,800	\$202,286	0		Declared 1 time; no Storm Events record of this type.
11	Earthquake	Very Low	Very Low	\$19,300	n/a	\$5,124	\$24,423			Storm Events does not record earthquakes.
12	Landslide	Relatively Low	Relatively Low	\$3,079	n/a	\$10,315	\$13,394	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Drought	Very Low	Very Low	n/a	\$44	n/a	\$44	0		Declared 1 time; no Storm Events record of this type.
	Hurricane	Not Applicable	Not Applicable					0	NRI rates hurricane Not Applicable for this county, and no counted federal declaration for this county names it (EM-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 709.10 (Very Low, 9.0); tract 710.06 (Very Low, 9.0); tract 701.03 (Very Low, 8.3)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 711.02 (Relatively Moderate, 95.9); tract 702.06 (Relatively Low, 94.0); tract 702.05 (Relatively Low, 91.3)
Tornado	tract 710.19 (Very High, 97.2); tract 714 (Very High, 96.5); tract 712.10 (Very High, 94.1)
Wildfire	tract 704.03 (Relatively Moderate, 88.8); tract 702.05 (Relatively Low, 85.5); tract 702.08 (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 709.10 is Census Tract 709.10). 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	19 records, 1996 to 2026 (19 zone-level)	1 day to 5 days (median 2 days); 18 with a recorded value	5 consecutive days, 1996-01-31 to 1996-02-04, zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	1 record, 2012 (1 zone-level)		Frost/Freeze, 2012-04-10, \$20,000 crop damage (2012 dollars); NWS zone MNZ063		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	0					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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Hail	hail size (inches)	203 records, 1962 to 2026	0.75 in to 2.75 in (median 1 in); 203 with a recorded value	2.75 in hail, 1999-06-05; same size also recorded on 1989-05-29	Hail, 1998-05-15, \$10,000,000 property; crops not reported (1998 dollars)	Event records naming jurisdictions in the plan: Woodbury city (30 records), Forest Lake city (24 records), Oakdale city (20 records), Cottage Grove city (15 records), Lake Elmo city (13 records), Stillwater city (12 records), Stillwater township (12 records), Hugo city (11 records), Newport city (7 records), Bayport city (6 records); and 11 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	14 records, 1999 to 2023 (14 zone-level)	1 day to 5 days (median 2 days); 12 with a recorded value	5 consecutive days, 2013-08-25 to 2013-08-29, 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)	2 records, 1996 to 1998 (2 zone-level)		No damage reported in 2 records.		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	13 records, 1997 to 2016 (5 zone-level)		No damage reported in 13 records.		Event records naming jurisdictions in the plan: Forest Lake city (2 records), Oakdale city (2 records), St. Paul Park city (2 records), Newport city (1 record), Woodbury city (1 record). Zone-level records (5) 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					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	11 records, 1996 to 2021		Lightning, 2009-07-21, \$0 property; \$0 crops (2009 dollars), 1 direct death	Lightning, 2017-05-16, \$450,000 property; \$0 crops (2017 dollars)	Event records naming jurisdictions in the plan: Stillwater city (3 records), Stillwater township (3 records), Cottage Grove city (2 records), Lake Elmo city (1 record), Marine on St. Croix city (1 record), Newport city (1 record), Oakdale city (1 record), Woodbury 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)	10 records, 1996 to 2018 (10 zone-level)	35 kt (40 mph) to 69 kt (79 mph) (median 51 kt (59 mph)); 10 with a recorded value	69 kt (79 mph) measured, High Wind, 2001-04-07; NWS zone MNZ063	Strong Wind, 2018-07-12, \$500 property; \$0 crops (zone total, 2018 dollars)	Countywide (zone-level records).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Thunderstorm Wind	wind speed (kt and mph)	159 records, 1960 to 2025	50 kt (58 mph) to 85 kt (98 mph) (median 52 kt (60 mph)); 132 with a recorded value	85 kt (98 mph), measurement type not recorded, Thunderstorm Wind, 1996-05-19	Thunderstorm Wind, 1998-05-30, \$14,000,000 property; crops not reported (1998 dollars)	Event records naming jurisdictions in the plan: Stillwater city (18 records), Stillwater township (18 records), Forest Lake city (17 records), Woodbury city (16 records), Cottage Grove city (14 records), Mahtomedi city (10 records), Oakdale city (10 records), Afton city (6 records), Hugo city (6 records), Lake Elmo city (6 records); and 11 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	27 records, 1954 to 2020	F/EF0 to F/EF3 (median F/EF0); 27 with a recorded value	EF3 tornado, 2008-05-25, 4.35 mi within this county, 220 yd wide, \$25,000,000 property; crops not reported (2008 dollars), 1 direct death, 17 direct injuries		Event records naming jurisdictions in the plan: Forest Lake city (6 records), Marine on St. Croix city (4 records), Hugo city (2 records), Scandia city (2 records), Woodbury city (2 records), Afton city (1 record), Cottage Grove city (1 record), Grant city (1 record), Lake Elmo city (1 record), Mahtomedi city (1 record); and 2 more jurisdictions (see the Excel file).	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)	118 records, 1996 to 2026 (118 zone- level)		No damage reported in 118 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: 17 declarations covering 14 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Notes
2020-04-07	2020-01-20	DR-4531-MN	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$1,131,301.12	
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
2019-06-12	2019-03-12	DR-4442-MN	Major disaster	Severe Winter Storm, Straight-Line Winds, and Flooding	Inland Flooding (primary); also designated: Strong Wind, Winter Weather	\$906,970.76	
2011-05-10	2011-03-16	DR-1982-MN	Major disaster	Severe Storms and Flooding	Inland Flooding	\$365,891.33	
2010-03-19	2010-03-01	EM-3310-MN	Emergency	Flooding	Inland Flooding	no Public Assistance recorded	
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	
2001-05-16	2001-03-23	DR-1370-MN	Major disaster	Severe Winter Storms, Flooding, and Tornadoes	Inland Flooding (primary); also designated: Ice Storm, Tornado, Winter Weather	\$1,833,784.32	
2000-10-20	2000-10-19	FM-2345-MN	Fire management	Mn - Carlos Edge Fire Complex - 10/19/2000	Wildfire	no Public Assistance recorded	
1998-06-23	1998-05-15	DR-1225-MN	Major disaster	Severe Storms, Straight Line Winds, and Tornadoes	Tornado (primary); also designated: Strong Wind	no Public Assistance recorded	
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	
1996-06-01	1996-03-14	DR-1116-MN	Major disaster	Flooding and Severe Storms	Inland Flooding	no Public Assistance recorded	
1993-06-11	1993-05-06	DR-993-MN	Major disaster	Severe Storms, Tornadoes & Flooding	Inland Flooding; Tornado	no Public Assistance recorded	
1987-08-06	1987-07-20	DR-797-MN	Major disaster	Severe Storms, Tornadoes & Flooding	Inland Flooding; Tornado	PA not declared for this county	
1978-07-08	1978-07-08	DR-560-MN	Major disaster	Severe Storms, Flooding, Hail & Tornadoes	Hail; Inland Flooding; Tornado	no Public Assistance recorded	
1976-06-17	1976-06-17	EM-3013-MN	Emergency	Drought	Drought	no Public Assistance recorded	
1969-04-18	1969-04-18	DR-255-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	

School districts and special districts in this county: \$45,453.11 (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
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 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 records	In the 12 months before plan approval records	Last 5 years records	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Cold Wave	20	3	1	4	0	0	1996 to 2026-06-30	Includes 1 Frost/Freeze record.
Drought	0	0	0	0	1	0	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	203	17	1	58	1	0	1955 to 2026-06-30	
Heat Wave	14	0	2	5	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	2	0	0	0	1	0	1996 to 2026-06-30	
Inland Flooding	13	0	0	0	11	0	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	11	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	169	9	3	12	3	0	1955 to 2026-06-30	Includes 7 High Wind and 3 Strong Wind records.
Tornado	27	0	0	0	5	0	1950 to 2026-06-30	

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
Wildfire	0	0	0	0	1	0	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Winter Weather	118	22	13	37	2	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
2022-12-23	Extreme Cold/ Wind Chill		\$0 property; \$0 crops (zone total, 2022 dollars)	1, 0	NWS zone MNZ063 (WASHINGTON), zone-level	in the 12 months before plan approval; within last 5 years	deaths or injuries recorded
2018-07-12	Strong Wind	43 kt (49 mph) estimated gust	\$500 property; \$0 crops (zone total, 2018 dollars)	0, 0	NWS zone MNZ063 (WASHINGTON), zone-level		B1-c most damaging: High Wind and Strong Wind
2013-08-25	Excessive Heat		\$0 property; \$0 crops (zone total, 2013 dollars)	0, 0	NWS zone MNZ063 (WASHINGTON), zone-level		B1-c worst recorded: Excessive Heat, Heat
2012-04-10	Frost/Freeze		\$0 property; \$20,000 crops (zone total, 2012 dollars)	0, 0	NWS zone MNZ063 (WASHINGTON), zone-level		B1-c worst recorded: Frost/Freeze
2009-07-21	Lightning		\$0 property; \$0 crops (2009 dollars)	1, 0	STILLWATER		deaths or injuries recorded
2008-05-25	Tornado	EF3, 4.35 mi within this county, 220 yd wide	\$25,000,000 property; crops not reported (2008 dollars)	1, 17	HUGO to WITHROW		deaths or injuries recorded
2001-04-07	High Wind	69 kt (79 mph) measured	damage not reported	0, 0	NWS zone MNZ063 (WASHINGTON), zone-level		B1-c worst recorded: High Wind and Strong Wind
1999-06-05	Hail	2.75 in	damage not reported	0, 0	FOREST LAKE		B1-c worst recorded: Hail
1998-05-30	Thunderstorm Wind	75 kt (86 mph), measurement type not recorded	\$14,000,000 property; crops not reported (1998 dollars)	0, 0	WOODBURY		B1-c most damaging: Thunderstorm Wind
1998-05-15	Hail	1.75 in	\$10,000,000 property; crops not reported (1998 dollars)	0, 0	FOREST LAKE		B1-c most damaging: Hail
1996-05-19	Thunderstorm Wind	85 kt (98 mph), measurement type not recorded	\$800,000 property; crops not reported (1996 dollars)	0, 0	COTTAGE GROVE		B1-c worst recorded: Thunderstorm Wind
1996-01-31	Cold/Wind Chill		damage not reported	0, 0	NWS zone MNZ063 (WASHINGTON), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill

The full list is in the Excel file, sheet "B1-d Storm Events history" (577 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	8.84	event-days per year	about 8.84 days per year	Likely	Storm Events event- days in 10 of 30 years, 1996 to 2025 (33.3%)	168	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0.785	event-days per year	about 0.785 days per year		Storm Events event- days in 0 of 30 years, 1996 to 2025 (0%)	42	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.000252	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0252%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	5.98	events per year	about 5.98 per year	Highly likely	FEMA annualized frequency (modeled)	227.2 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	6.05	event-days per year	about 6.05 days per year	Likely	Storm Events event- days in 8 of 30 years, 1996 to 2025 (26.7%)	91	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	0.392	event-days per year	about 0.392 days per year	Possible	Storm Events event- days in 2 of 30 years, 1996 to 2025 (6.67%)	27	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.429	event-days per year	about 0.429 days per year	Likely	Storm Events event- days in 9 of 30 years, 1996 to 2025 (30%)	12	1996 to 2023 (28 years)	see B1-f	
Landslide	0.166	events per year (modeled)	about 1 in 6 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	35.3	days per year with a strike	about 35.3 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	4.37	events per year	about 4.37 per year	Highly likely	FEMA annualized frequency (modeled)	166	1986 to 2023 (38 years)	countywide	
Tornado	0.284	events per year	about 1 in 4 years	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	0.000346	annual probability at a location	chance a given location in the county burns in a year: 0.0346%		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	17.4	event-days per year	about 17.4 days per year	Highly likely	Storm Events event- days in 27 of 30 years, 1996 to 2025 (90%)	330	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	104	30	3.47
Hail	2.00 in+	1996 to 2025	12	30	0.4
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	117	30	3.9
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	11	30	0.367
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	0	30	0
Tornado	EF0-1	1996 to 2025	18	30	0.6
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	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	59 of 59	22.9	70.8	89.3	Relatively High 15, Relatively Moderate 42, Relatively Low 2
Drought	29 of 59	66.8	67.2	69.4	Very Low 29, No Rating 30
Earthquake	59 of 59	0.2	1.4	9.0	Very Low 59
Hail	59 of 59	38.7	83.9	94.0	Relatively High 13, Relatively Moderate 44, Relatively Low 2
Heat Wave	59 of 59	3.2	42.1	72.3	Relatively Moderate 12, Relatively Low 45, Very Low 2
Hurricane	0 of 59				Not Applicable 59
Ice Storm	59 of 59	2.5	39.1	68.3	Relatively Low 40, Very Low 19
Inland Flooding	59 of 59	0.4	36.1	96.8	Very High 1, Relatively High 1, Relatively Moderate 16, Relatively Low 31, Very Low 10
Landslide	59 of 59	26.4	68.5	95.9	Relatively Moderate 1, Relatively Low 13, Very Low 45
Lightning	59 of 59	9.9	71.1	93.6	Relatively High 15, Relatively Moderate 39, Relatively Low 4, Very Low 1
Strong Wind	59 of 59	30.1	92.4	98.9	Very High 10, Relatively High 44, Relatively Moderate 4, Relatively Low 1

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	59 of 59	27.1	76.7	97.2	Very High 3, Relatively High 36, Relatively Moderate 17, Relatively Low 2, Very Low 1
Wildfire	58 of 59	27.3	61.0	88.8	Relatively Moderate 1, Relatively Low 21, Very Low 36, No Rating 1
Winter Weather	59 of 59	19.7	57.7	79.5	Relatively High 2, Relatively Moderate 50, Relatively Low 7

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
Washington County	County	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 9	\$14,913.63	0 total; 0 since its plan	
Afton city	City	Approved, expires 2028-11-09	FMA RL 1, SRL 1; any 7	\$263,271.27	9 total; 1 since its plan	
Bayport city	City	Approved, expires 2028-11-09	FMA RL 1, SRL 7; any 23	\$98,633.63	8 total; 0 since its plan	
Birchwood Village city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Cottage Grove city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	\$925,127.20	32 total; 1 since its plan	
Dellwood city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	1 total; 0 since its plan	
Forest Lake city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	49 total; 0 since its plan	
Grant city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	4 total; 0 since its plan	
Hastings city	City	Approved, expires 2028-04-19	FMA RL 0, SRL 0; any 4	no Public Assistance recorded	0 total; 0 since its plan	Whole community, including the part in Dakota County; in-county portion (county table): FMA RL 0, FMA SRL 0, NFIP RL 2, NFIP SRL 0, any category 2.
Hugo city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	19 total; 1 since its plan	
Lake Elmo city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	21 total; 3 since its plan	

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>	
Lake St. Croix Beach city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 3	\$271,022.15	1 total; 0 since its plan	
Lakeland city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 2; any 9	\$26,896.24	2 total; 0 since its plan	
Lakeland Shores city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	0 total; 0 since its plan	
Landfall city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	5 total; 3 since its plan	
Mahtomedi city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	17 total; 0 since its plan	
Marine on St. Croix city	City	Approved, expires 2028-11-09	FMA RL 1, SRL 0; any 1	no Public Assistance recorded	10 total; 1 since its plan	
Newport city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 2	\$139,565.43	15 total; 0 since its plan	
Oak Park Heights city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	5 total; 0 since its plan	
Oakdale city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	33 total; 3 since its plan	
Pine Springs city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	9 total; 0 since its plan	
Scandia city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	\$35,952.77	12 total; 0 since its plan	
St. Marys Point city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 9	no Public Assistance recorded	0 total; 0 since its plan	
St. Paul Park city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 1	\$113,183.03	7 total; 2 since its plan	
Stillwater city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	34 total; 1 since its plan	
White Bear Lake city	City	Approved, expires 2030-06-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Willernie city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	5 total; 0 since its plan	
Woodbury city	City	Approved, expires 2028-11-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	50 total; 9 since its plan	
Baytown township	Township	Approved, expires 2028-11-09		no Public Assistance recorded	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
Denmark township	Township	Approved, expires 2028-11-09		no Public Assistance recorded	0 total; 0 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>	
Grey Cloud Island township	Township	Approved, expires 2028-11-09		no Public Assistance recorded	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
May township	Township	Approved, expires 2028-11-09		no Public Assistance recorded	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
Stillwater township	Township	Approved, expires 2028-11-09		no Public Assistance recorded	34 total; 1 since its plan	No NFIP community ID on this jurisdiction's plan row.
West Lakeland township	Township	Approved, expires 2028-11-09		\$21,226.69	0 total; 0 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).

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		Storm Events damage since 2023-11-10 <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
						<i>FEMA's dollar value per year; not property damage</i>	<i>EAL as % of exposure buildings; agriculture where noted</i>				
Cold Wave	\$59,899,087,382	\$76,973,870	267,506	\$193	\$2,015	\$10,462,166	under 0.0001%		\$0		
Drought	n/a	\$34,840,098	n/a	n/a	\$44	n/a	0.000126% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$99,400,633,750	n/a	267,568	\$19,300	n/a	\$5,124	under 0.0001%				

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2023-11-10 <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
Hail	\$59,899,087,382	\$76,973,870	267,506	\$4,690,256	\$88,202	\$308,373	0.00783%	\$0			
Heat Wave	\$59,899,087,382	\$76,973,870	267,506	\$4,884	\$1	\$2,758,668	under 0.0001%				
Hurricane											Not Applicable in NRI for this county
Ice Storm	\$59,868,124,676	n/a	267,427	\$239,342	n/a	\$70,249	0.0004%				
Inland Flooding	\$59,836,296,769	\$1,186,184	1,959	\$41,419,681	\$4,618	\$26,446	n/a (see note)				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	\$1,177,529,205	n/a	4,851	\$3,079	n/a	\$10,315	0.000262%				
Lightning	\$59,899,087,382	n/a	267,506	\$84,629	n/a	\$1,868,011	0.000141%				
Strong Wind	\$59,899,087,382	\$76,973,870	267,506	\$6,381,349	\$54,843	\$4,172,708	0.0107%	\$0			
Tornado	\$59,899,087,382	\$76,973,870	267,506	\$8,533,591	\$1,153	\$10,970,425	0.0142%				
Wildfire	\$9,144,255,955	\$22,256,830	52,428	\$181,433	\$53	\$20,800	0.00198%				
Winter Weather	\$59,899,087,382	\$76,973,870	267,506	\$34,709	\$440	\$284,145	under 0.0001%		\$0		

Totals since 2023-11-10 (Storm Events through 2026-06-30): 26 county-coded records, 25 with a damage value recorded (including \$0), \$0; 25 zone-level records, 25 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: no counted declaration since the plan.

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	267,506
Building value (total, not at risk)	\$59,899,087,382
Agriculture value (total, not at risk)	\$76,973,870
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$61,743,813
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)	\$30,957,430
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)	3	Severe repetitive loss, FMA definition (44 CFR 77.2)	10
Repetitive loss, NFIP insurance definition	69	Severe repetitive loss, NFIP insurance definition	10

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	3	10	69	10	69	1	19
of which: Hastings city	0	0	2	0	2	0	0
of which: Washington County (unincorporated area)	0	0	9	0	9	0	1
of which: Lake Elmo city	0	0	1	0	1	1	0
of which: Marine-on-St. Croix city	1	0	1	0	1	0	0

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>
of which: Newport city	0	0	2	0	2	0	0
of which: St. Paul Park city	0	0	1	0	1	0	0
of which: Afton city	1	1	7	1	7	0	0
of which: Bayport city	1	7	23	7	23	0	8
of which: Lakeland city	0	2	9	2	9	0	3
of which: Lakeland Shores city	0	0	1	0	1	0	0
of which: Lake St. Croix Beach city	0	0	3	0	3	0	3
of which: St. Marys Point city	0	0	9	0	9	0	4
of which: Stillwater city	0	0	1	0	1	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>	Note
Washington County	270499	0	0	9	0	9	0	1	
Afton city	275226	1	1	7	1	7	0	0	
Bayport city	275229	1	7	23	7	23	0	8	
Birchwood Village city	270720	0	0	0	0	0	0	0	
Cottage Grove city	270502	0	0	0	0	0	0	0	
Dellwood city	270694	0	0	0	0	0	0	0	
Forest Lake city	270693	0	0	0	0	0	0	0	
Grant city	270780	0	0	0	0	0	0	0	
Hastings city	270105	0	0	4	0	4	0	1	Whole community, including the part in Dakota County; in-county portion (county table): FMA RL 0, FMA SRL 0, NFIP RL 2, NFIP SRL 0, any category 2.
Hugo city	270504	0	0	0	0	0	0	0	
Lake Elmo city	270505	0	0	1	0	1	1	0	
Lake St. Croix Beach city	275240	0	0	3	0	3	0	3	
Lakeland city	275238	0	2	9	2	9	0	3	
Lakeland Shores city	275239	0	0	1	0	1	0	0	
Landfall city	270029	0	0	0	0	0	0	0	
Mahtomedi city	270698	0	0	0	0	0	0	0	
Marine on St. Croix city	270509	1	0	1	0	1	0	0	

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>	Note
Newport city	270510	0	0	2	0	2	0	0	
Oak Park Heights city	270512	0	0	0	0	0	0	0	
Oakdale city	270511	0	0	0	0	0	0	0	
Pine Springs city	270697	0	0	0	0	0	0	0	
Scandia city	270582	0	0	0	0	0	0	0	
St. Marys Point city	275247	0	0	9	0	9	0	4	
St. Paul Park city	270514	0	0	1	0	1	0	0	
Stillwater city	275249	0	0	1	0	1	0	0	
White Bear Lake city	270386	0	0	0	0	0	0	0	
Willernie city	270695	0	0	0	0	0	0	0	
Woodbury city	270699	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	2	3	51	3	51	1	17
2 to 4 unit residential	0	0	0	0	0	0	0
other residential	0	6	9	6	9	0	2
non-residential	1	1	9	1	9	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 66 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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 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_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_scscd_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 (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.

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).

Reuse, citation and corrections

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Cite this: Hazard Plain (2026). Washington County, MN: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 27163). Automated baseline. <https://hazardplain.org/mn/27163/> Built from FEMA OpenFEMA, the FEMA National Risk Index and NOAA NCEI Storm Events; source versions in the packet's Sources list.

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