

Sanilac County, MI

Risk-assessment baseline packet

County FIPS: 26151 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: Expired on 2025-10-20. Plan: Sanilac HMP Update (FEMA plan 106301), approved 2020-10-21.

Since the plan was approved on 2020-10-21: no new hazard declaration and 25 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): Cold Wave (\$10,212,845 a year), Inland Flooding (\$8,883,400) and Tornado (\$1,554,999).

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; 26151 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:	Expired on 2025-10-20	Plan:	Sanilac HMP Update (FEMA plan 106301)
Approved:	2020-10-21	Days since expiry:	345
Update underway:	none recorded in FEMA's plan tracker		

Until a new plan is approved, FEMA mitigation project grants (HMGP, FMA) need a FEMA exception (44 CFR 201.6(a)(3)).

What changed since your last plan (approved 2020-10-21)

New federal declarations:	none	Storm Events records since approval:	25 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: 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 <i>negative = days since expiry</i>	Update underway	Notes
Sanilac County	County	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Applegate village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Brown City city	City	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345	FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Carsonville village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Croswell city	City	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Deckerville village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Forestville village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Lexington village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Marlette city	City	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Melvin village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Minden City village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Peck village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Port Sanilac village	Village	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Sandusky city	City	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Argyle township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Austin township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Bridgehampton township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Buel township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Elk township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Elmer township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Evergreen township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Flynn township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Forester township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Fremont township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Greenleaf township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Lamotte township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Lexington township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Maple Valley township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Marion township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Marlette township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Minden township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Moore township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Sanilac township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Speaker township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Washington township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Watertown township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Wheatland township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		
Worth township	Township	Expired on 2025-10-20	Sanilac HMP Update (FEMA plan 106301)	2020-10-21	2025-10-20	-345		

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	EAL agriculture	Cost of expected deaths and injuries	EAL total (see note)	Storm Events records, 1996 to 2026-06-30	Storm Events coverage note
				<i>modeled dollars per year</i>	<i>modeled dollars per year</i>	<i>FEMA's dollar value per year, not property damage</i>	<i>modeled dollars per year</i>	<i>count</i>	
1	Cold Wave	Relatively High	Relatively High	\$1,397	\$247,480	\$9,963,968	\$10,212,845	16	Includes 2 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
2	Inland Flooding	Relatively Low	Relatively Low	\$8,878,228	\$5,094	\$78	\$8,883,400	11	
3	Tornado	Relatively Low	Relatively Low	\$752,294	\$4,760	\$797,945	\$1,554,999	11	

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
4	Strong Wind	Relatively Moderate	Relatively Moderate	\$684,531	\$3,480	\$106,856	\$794,866	146	Includes 27 High Wind and 4 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
5	Hail	Relatively Low	Relatively Low	\$244,543	\$74,086	\$6,041	\$324,670	55	
6	Winter Weather	Relatively High	Relatively High	\$16,575	\$2,052	\$297,219	\$315,846	84	
7	Heat Wave	Relatively Low	Relatively Low	\$1,736	\$3	\$238,150	\$239,889	12	
8	Ice Storm	Relatively Moderate	Relatively Moderate	\$184,684	n/a	\$1,641	\$186,325	4	
9	Hurricane	Very Low	Very Low	\$52,174	\$46,982	\$253	\$99,410	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
10	Lightning	Relatively Low	Relatively Low	\$19,311	n/a	\$69,340	\$88,651	5	
11	Earthquake	Very Low	Very Low	\$62,819	n/a	\$17,250	\$80,069		Storm Events does not record earthquakes.
12	Wildfire	Very Low	Very Low	\$2,978	\$7	\$224	\$3,209	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Coastal Flooding	Very Low	Very Low	\$2,149	n/a	\$101	\$2,250	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Landslide	Very Low	Very Low	\$56	n/a	\$252	\$308	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
15	Drought	No Rating	No Expected Annual Losses	n/a	\$0	n/a	\$0	2	
	Tsunami	Insufficient Data	Insufficient Data	n/a	n/a	n/a	n/a	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

Local data needed: state and local wildfire, landslide and tsunami 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 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.

Coastal Flooding and 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 9710 (Very Low, 36.6); tract 9709 (Very Low, 32.8); tract 9708 (Very Low, 31.1)
Hurricane	tract 9708 (Relatively Low, 55.0); tract 9710 (Relatively Low, 54.8); tract 9712 (Relatively Low, 54.7)
Landslide	tract 9701 (Relatively Low, 81.3); tract 9708 (Very Low, 79.6); tract 9705 (Very Low, 75.5)
Tornado	tract 9708 (Relatively High, 82.1); tract 9710 (Relatively High, 79.6); tract 9712 (Relatively High, 76.7)
Tsunami	no tract has a National Risk Index rating for this hazard
Wildfire	tract 9708 (Very Low, 65.8); tract 9706 (Very Low, 58.8); tract 9705 (Very Low, 57.7)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 9710 is Census Tract 9710). 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
Coastal Flood, Storm Surge/ Tide	none in data (flood depth: FIRM)	0					Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	14 records, 1996 to 2019 (14 zone-level)	1 day to 21 days (median 3 days); 14 with a recorded value	January 2003 (1 monthly summary record), zone-level	Cold/Wind Chill, 2007-02-03, \$25,000 property; \$0 crops (zone total, 2007 dollars)	Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	2 records, 2007 to 2012 (2 zone-level)		Frost/Freeze, 2012-04-27, \$1,300,000 crop damage (2012 dollars); NWS zone MIZ055		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
Drought	U.S. Drought Monitor scale (D0 to D4)	2 records, 2001 to 2002 (2 zone-level)	30 days to 31 days (median 30.5 days); 2 with a recorded value	31 days (1 month), 2001-07-01 to 2001-07-31, 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)	64 records, 1977 to 2022	0.75 in to 2.75 in (median 0.88 in); 64 with a recorded value	2.75 in hail, 1999-07-28	Hail, 1996-09-11, \$150,000 property; crops not reported (1996 dollars)	Event records naming jurisdictions in the plan: Brown City city (7 records), Lexington township (7 records), Lexington village (7 records), Deckerville village (6 records), Croswell city (4 records), Marlette city (4 records), Marlette township (4 records), Argyle township (3 records), Melvin village (3 records), Port Sanilac village (3 records); and 5 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	12 records, 1999 to 2018 (12 zone-level)	1 day to 7 days (median 5.5 days); 8 with a recorded value	7 consecutive days, 2012-07-01 to 2012-07-07, zone-level		Countywide (zone-level records).	Heat records from November to March (unseasonable warmth, not a heat wave) are counted but not used for the longest run.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.
Ice Storm	Sperry-Piltz ice scale (local data)	4 records, 1997 to 2013 (4 zone-level)		Ice Storm, 2013-12-21, \$3,000,000 property; \$0 crops (2013 dollars); NWS zone MIZ055		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	11 records, 1996 to 2020 (4 zone-level)		Flash Flood, 2006-08-02, \$1,250,000 property; crops not reported (2006 dollars)		Event records naming jurisdictions in the plan: Marlette city (2 records), Marlette township (2 records), Brown City city (1 record), Forestville village (1 record). Zone-level records (4) 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)	5 records, 1999 to 2011		Lightning, 2011-05-14, \$50,000 property; \$0 crops (2011 dollars)		Event records naming jurisdictions in the plan: Sandusky city (3 records), Brown City 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)	31 records, 1996 to 2026 (31 zone-level)	35 kt (40 mph) to 70 kt (81 mph) (median 52 kt (60 mph)); 31 with a recorded value	70 kt (81 mph), measurement type not recorded, High Wind, 1997-04-06; NWS zone MIZ055	High Wind, 2017-03-08, \$7,000,000 property; \$0 crops (zone total, 2017 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)	144 records, 1973 to 2026	50 kt (58 mph) to 78 kt (90 mph) (median 54 kt (62 mph)); 118 with a recorded value	78 kt (90 mph), measurement type not recorded, Thunderstorm Wind, 1999-05-17	Thunderstorm Wind, 1995-07-13, \$300,000 property; crops not recorded (1995 dollars)	Event records naming jurisdictions in the plan: Marlette city (12 records), Marlette township (12 records), Sandusky city (12 records), Deckerville village (11 records), Croswell city (10 records), Peck village (9 records), Lexington township (8 records), Lexington village (8 records), Argyle township (6 records), Brown City city (6 records); and 8 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	21 records, 1957 to 2025	F/EF0 to F/EF3 (median F/EF1); 21 with a recorded value	F3 tornado, 1984-09-02, 6.8 mi path length (whole path, pre-1996), 400 yd wide, \$2,500,000 property; crops not recorded (1984 dollars), 1 direct injury		Event records naming jurisdictions in the plan: Applegate village (2 records), Argyle township (1 record), Carsonville village (1 record), Deckerville village (1 record), Marlette city (1 record), Marlette township (1 record), Peck village (1 record), Port Sanilac village (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).
Tsunami	none (count and damage only)	0					
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	84 records, 1996 to 2026 (84 zone-level)		Winter Storm, 2018-04-14, \$1,000,000 property; \$0 crops (2018 dollars); NWS zone MIZ055		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, lightning and tsunami.

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.

A monthly summary record covers most or all of a month; it does not count days at wave conditions.

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 12 declarations covering 9 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
2020-03-27	2020-01-20	DR-4494-MI	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$3,429.27	in the 12 months before plan approval	
2020-03-13	2020-01-20	EM-3455-MI	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	in the 12 months before plan approval	same incident as DR-4494
2005-09-07	2005-08-29	EM-3225-MI	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
2004-06-30	2004-05-20	DR-1527-MI	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	PA not declared for this county		
2001-01-10	2000-12-11	EM-3160-MI	Emergency	Snow	Winter Weather	\$84,378.75		
1996-07-23	1996-06-21	DR-1128-MI	Major disaster	Severe Storms and Flooding	Inland Flooding	no Public Assistance recorded		
1986-09-18	1986-09-10	DR-774-MI	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1985-09-18	1985-09-05	DR-744-MI	Major disaster	Severe Storms and Flooding	Inland Flooding	no Public Assistance recorded		
1978-01-27	1978-01-27	EM-3057-MI	Emergency	Blizzards & Snowstorms	Winter Weather	no Public Assistance recorded		
1977-02-05	1977-02-05	EM-3030-MI	Emergency	Snowstorms	Winter Weather	no Public Assistance recorded		
1976-03-19	1976-03-19	DR-495-MI	Major disaster	Severe Storms, Tornadoes, Icing & Flooding	Inland Flooding; Tornado	no Public Assistance recorded		
1973-04-12	1973-04-12	DR-371-MI	Major disaster	Severe Storms & 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
1956-04-05	1956-04-05	DR-53-MI	Major disaster	Tornado	Tornado
1953-06-09	1953-06-09	DR-6-MI	Major disaster	Tornado	Tornado
1953-06-02	1953-06-02	DR-4-MI	Major disaster	Tornado	Tornado

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.

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
Coastal Flooding	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Cold Wave	16	0	0	0	0	0	1996 to 2026-06-30	Includes 2 Frost/Freeze records.
Drought	2	0	0	0	0	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	64	1	3	1	0	0	1955 to 2026-06-30	
Heat Wave	12	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
Ice Storm	4	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	11	0	3	0	6	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	5	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	175	13	2	9	0	0	1955 to 2026-06-30	Includes 27 High Wind and 4 Strong Wind records.
Tornado	21	2	0	2	2	0	1950 to 2026-06-30	
Tsunami	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Wildfire	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Winter Weather	84	9	1	8	3	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Why listed
2018-04-14	Winter Storm		\$1,000,000 property; \$0 crops (zone total, 2018 dollars)	0, 0	NWS zone MIZ055 (SANILAC), zone-level	B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2012-07-01	Heat		\$0 property; \$0 crops (zone total, 2012 dollars)	0, 0	NWS zone MIZ055 (SANILAC), zone-level	B1-c worst recorded: Excessive Heat, Heat
2012-04-27	Frost/Freeze		\$0 property; \$1,300,000 crops (zone total, 2012 dollars)	0, 0	NWS zone MIZ055 (SANILAC), zone-level	B1-c worst recorded: Frost/Freeze
2007-02-03	Cold/Wind Chill		\$25,000 property; \$0 crops (zone total, 2007 dollars)	0, 10	NWS zone MIZ055 (SANILAC), zone-level	deaths or injuries recorded
2006-08-02	Flash Flood		\$1,250,000 property; crops not reported (2006 dollars)	0, 0	BROWN CITY	B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2003-01-10	Cold/Wind Chill		damage not reported	0, 0	NWS zone MIZ055 (SANILAC), zone-level	B1-c worst recorded: Cold/Wind Chill, Extreme Cold/ Wind Chill
2001-02-19	Extreme Cold/ Wind Chill		damage not reported	1, 0	NWS zone MIZ055 (SANILAC), zone-level	deaths or injuries recorded
1999-07-28	Hail	2.75 in	damage not reported	0, 0	ELMER to ARGYLE	B1-c worst recorded: Hail
1999-05-17	Thunderstorm Wind	78 kt (90 mph), measurement type not recorded	\$50,000 property; crops not reported (1999 dollars)	0, 0	DECKERVILLE	B1-c worst recorded: Thunderstorm Wind
1997-04-06	High Wind	70 kt (81 mph), measurement type not recorded	\$50,000 property; crops not reported (zone total, 1997 dollars)	0, 0	NWS zone MIZ055 (SANILAC), zone-level	B1-c worst recorded: High Wind and Strong Wind
1988-08-14	Thunderstorm Wind	speed not recorded	damage not recorded (pre-1996 record)	2, 1	location not recorded	deaths or injuries recorded
1984-09-02	Tornado	F3, 6.8 mi path length (whole path, pre-1996), 400 yd wide	\$2,500,000 property; crops not recorded (1984 dollars)	0, 1	location not recorded	B1-c worst recorded: Tornado

The full list is in the Excel file, sheet "B1-d Storm Events history" (394 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
Coastal Flooding	0.0141	events per year at a location (modeled)	about 0.014 per year at a given location in the county		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
Cold Wave	3	event-days per year	about 3 days per year	Likely	Storm Events event-days in 11 of 30 years, 1996 to 2025 (36.7%)	57	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0	event-days per year	none modeled	Possible	Storm Events event-days in 2 of 30 years, 1996 to 2025 (6.67%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	NRI models no drought event-days here (2000 to 2025, 25.25 years; D3 and D4 only); Storm Events has a record in 2 of 30 years. The descriptor comes from Storm Events, which counts D2 drought that NRI leaves out.
Earthquake	0.000557	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0557%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	1.55	events per year	about 1.55 per year	Highly likely	FEMA annualized frequency (modeled)	59.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	1.95	event-days per year	about 1.95 days per year	Likely	Storm Events event-days in 8 of 30 years, 1996 to 2025 (26.7%)	33	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.023	events per year	about 1 in 43 years	Possible	FEMA annualized frequency (modeled)	8	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.925	event-days per year	about 0.925 days per year	Likely	Storm Events event-days in 4 of 30 years, 1996 to 2025 (13.3%)	39	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.393	event-days per year	about 0.393 days per year	Likely	Storm Events event-days in 8 of 30 years, 1996 to 2025 (26.7%)	11	1996 to 2023 (28 years)	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
Landslide	0.118	events per year (modeled)	about 1 in 8 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	29.8	days per year with a strike	about 29.8 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	3.13	events per year	about 3.13 per year	Highly likely	FEMA annualized frequency (modeled)	73	1986 to 2023 (38 years)	countywide	
Tornado	0.325	events per year	about 1 in 3 years	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)			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
Wildfire	0.000015	annual probability at a location	chance a given location in the county burns in a year: 0.0015%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Winter Weather	13.5	event-days per year	about 13.5 days per year	Highly likely	Storm Events event-days in 29 of 30 years, 1996 to 2025 (96.7%)	257	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	23	30	0.767
Hail	2.00 in+	1996 to 2025	2	30	0.0667
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	112	30	3.73
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	2	30	0.0667
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	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	
Coastal Flooding	4 of 12	76.3	77.4	78.2	Relatively Low 3, Very Low 1, No Rating 8
Cold Wave	12 of 12	92.6	99.1	99.6	Very High 11, Relatively High 1
Drought	0 of 12				No Rating 12
Earthquake	12 of 12	9.3	21.5	36.6	Very Low 12
Hail	12 of 12	56.1	76.8	84.1	Relatively Moderate 10, Relatively Low 2
Heat Wave	12 of 12	11.8	36.2	50.6	Relatively Low 11, Very Low 1
Hurricane	12 of 12	43.3	52.4	55.0	Relatively Low 7, Very Low 5
Ice Storm	12 of 12	55.4	80.0	92.2	Relatively High 2, Relatively Moderate 8, Relatively Low 2
Inland Flooding	12 of 12	18.7	67.3	96.0	Very High 1, Relatively High 2, Relatively Moderate 5, Relatively Low 4
Landslide	12 of 12	47.6	70.7	81.3	Relatively Low 1, Very Low 11
Lightning	12 of 12	22.7	43.2	57.3	Relatively Moderate 3, Relatively Low 9
Strong Wind	12 of 12	66.7	86.5	94.3	Relatively High 8, Relatively Moderate 4
Tornado	12 of 12	50.8	67.6	82.1	Relatively High 3, Relatively Moderate 6, Relatively Low 3
Tsunami	0 of 12				Insufficient Data 12
Wildfire	12 of 12	42.3	53.2	65.8	Very Low 12
Winter Weather	12 of 12	85.6	96.6	98.4	Very High 7, Relatively High 5

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, 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.

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
Sanilac County	County	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Applegate village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	6 total; 2 since its plan	
Brown City city	City	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	15 total; 0 since its plan	
Carsonville village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$1,455	5 total; 2 since its plan	
Croswell city	City	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$6,606.75	14 total; 0 since its plan	
Deckerville village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$2,160.75	18 total; 0 since its plan	
Forestville village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 0 since its plan	
Lexington village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$5,553.27	15 total; 0 since its plan	Includes \$3,429.27 for declarations not counted as hazard incidents (DR-4494-MI).
Marlette city	City	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$4,338.75	19 total; 2 since its plan	
Melvin village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	9 total; 0 since its plan	
Minden City village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$787.50	1 total; 0 since its plan	
Peck village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$2,128.50	12 total; 0 since its plan	
Port Sanilac village	Village	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$2,138.25	8 total; 2 since its plan	
Sandusky city	City	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	\$3,254.25	18 total; 1 since its plan	
Argyle township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	10 total; 0 since its plan	
Austin township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Bridgehampton township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Buel township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 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>	
Elk township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Elmer township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	1 total; 0 since its plan	
Evergreen township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Flynn township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Forester township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 0 since its plan	
Fremont township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Greenleaf township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Lamotte township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Lexington township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	15 total; 0 since its plan	
Maple Valley township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Marion township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Marlette township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	19 total; 2 since its plan	
Minden township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Moore township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Sanilac township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Speaker township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Washington township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Watertown township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 0 since its plan	

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
Wheatland township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Worth township	Township	Expired on 2025-10-20	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	

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

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

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

Local data needed

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

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

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

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

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2020-10-21 <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
Coastal Flooding	\$346,430,968	n/a	394	\$2,149	n/a	\$101	0.00062%				
Cold Wave	\$11,525,654,646	\$460,450,222	40,597	\$1,397	\$247,480	\$9,963,968	under 0.0001%				
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$19,764,987,075	n/a	40,611	\$62,819	n/a	\$17,250	0.000318%				
Hail	\$11,525,654,646	\$460,450,222	40,597	\$244,543	\$74,086	\$6,041	0.00212%	\$0			
Heat Wave	\$11,525,654,646	\$460,450,222	40,597	\$1,736	\$3	\$238,150	under 0.0001%				
Hurricane	\$11,522,435,585	\$447,612,947	40,585	\$52,174	\$46,982	\$253	0.000453%				
Ice Storm	\$11,405,875,804	n/a	40,357	\$184,684	n/a	\$1,641	0.00162%				

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 2020-10-21 <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
Inland Flooding	\$11,517,613,624	\$1,067,076	320	\$8,878,228	\$5,094	\$78	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	\$47,204,909	n/a	123	\$56	n/a	\$252	0.000118%				
Lightning	\$11,525,654,646	n/a	40,597	\$19,311	n/a	\$69,340	0.000168%				
Strong Wind	\$11,525,654,646	\$460,450,222	40,597	\$684,531	\$3,480	\$106,856	0.00594%	\$0	\$375,000		Storm Events damage since the plan includes 3 zone-level High Wind records (\$375,000): a NOAA non-thunderstorm wind type, outside NRI's Strong Wind definition.
Tornado	\$11,525,654,646	\$460,450,222	40,597	\$752,294	\$4,760	\$797,945	0.00653%	\$0			
Tsunami	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Wildfire	\$2,462,012,983	\$51,935,624	8,381	\$2,978	\$7	\$224	0.000121%				
Winter Weather	\$11,525,654,646	\$460,450,222	40,597	\$16,575	\$2,052	\$297,219	0.000144%		\$0		

Totals since 2020-10-21 (Storm Events through 2026-06-30): 12 county-coded records, 12 with a damage value recorded (including \$0), \$0; 13 zone-level records, 13 with a damage value recorded (including \$0), \$375,000 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	40,597
Building value (total, not at risk)	\$11,525,654,646
Agriculture value (total, not at risk)	\$460,450,222
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$11,287,417
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)	\$11,499,318
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 and state-level rows

Sources: 1, 4

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
County total	0	0	0	0	0	0	0
Statewide, no county in FEMA's file	0	0	4	0	4	0	0

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

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

Sources: 1, 4

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
Sanilac County	261819	0	0	0	0	0	0	0
Applegate village	261227	0	0	0	0	0	0	0
Brown City city	261331	0	0	0	0	0	0	0
Carsonville village	261314	0	0	0	0	0	0	0
Croswell city	260515	0	0	0	0	0	0	0
Deckerville village	261316	0	0	0	0	0	0	0
Forestville village	261230	0	0	0	0	0	0	0
Lexington village	261357	0	0	0	0	0	0	0
Marlette city	260959	0	0	0	0	0	0	0
Melvin village	261232	0	0	0	0	0	0	0
Minden City village	261234	0	0	0	0	0	0	0
Peck village	261235	0	0	0	0	0	0	0
Port Sanilac village	260779	0	0	0	0	0	0	0
Sandusky city	261236	0	0	0	0	0	0	0
Argyle township	261228	0	0	0	0	0	0	0
Austin township	261229	0	0	0	0	0	0	0
Bridgehampton township	261330	0	0	0	0	0	0	0
Buel township	261313	0	0	0	0	0	0	0
Elk township	261317	0	0	0	0	0	0	0
Elmer township	261318	0	0	0	0	0	0	0
Evergreen township	260516	0	0	0	0	0	0	0
Flynn township	261319	0	0	0	0	0	0	0
Forester township	260771	0	0	0	0	0	0	0
Fremont township	261354	0	0	0	0	0	0	0
Greenleaf township	261245	0	0	0	0	0	0	0
Lamotte township	261246	0	0	0	0	0	0	0
Lexington township	260718	0	0	0	0	0	0	0
Maple Valley township	261231	0	0	0	0	0	0	0
Marion township	261794	0	0	0	0	0	0	0
Marlette township	261022	0	0	0	0	0	0	0
Minden township	261233	0	0	0	0	0	0	0
Moore township	260517	0	0	0	0	0	0	0
Sanilac township	260791	0	0	0	0	0	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>
Speaker township	261237	0	0	0	0	0	0	0
Washington township	261355	0	0	0	0	0	0	0
Watertown township	261356	0	0	0	0	0	0	0
Wheatland township	261247	0	0	0	0	0	0	0
Worth township	260296	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):

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scsd_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.

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). Sanilac County, MI: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 26151). Automated baseline. <https://hazardplain.org/mi/26151/> 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