

Ottawa County, MI

Risk-assessment baseline packet

County FIPS: 26139 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 2028-01-25. Plan: Ottawa County (Kent County) (FEMA plan 108780), approved 2023-01-26.

Since the plan was approved on 2023-01-26: no new hazard declaration and 45 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 (\$44,619,175 a year), Tornado (\$8,474,363) and Strong Wind (\$6,910,969).

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; 26139 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.

CONTENTS

- 1. Summary and terms used, page 1
- 2. Plan clock, page 2
- 3. What changed since your last plan (approved 2023-01-26), page 2
- 4. B1-a: hazard identification, page 4
- 5. B1-b: hazard location, page 6
- 6. B1-c: hazard extent, page 6
- 7. B1-d: previous occurrences, page 9
- 8. B1-e: probability of future events, page 12
- 9. B1-f: hazards that vary across jurisdictions, page 15
- 10. B2-a and B2-b: vulnerability and potential impacts, page 18
- 11. B2-a: vulnerability (county context), page 19
- 12. B2-c: repetitive loss properties, page 20
- 13. Sources, what the plan adds, disclaimer and citation, page 22

Plan clock

Status:	Approved, expires 2028-01-25	Plan:	Ottawa County (Kent County) (FEMA plan 108780)
Approved:	2023-01-26	Days to expiry:	482
What changed since your last plan (approved 2023-01-26)			
New federal declarations:	none	Storm Events records since approval:	45 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 0, SRL 5 (44 CFR 77.2); any definition: 29	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: 25 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
Ottawa County	County	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-25
Coopersville city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Ferrysburg city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Grand Haven city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-11-09
Holland city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-04
Hudsonville city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Spring Lake village	Village	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19
Zeeland city	City	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-23
Allendale charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19
Blendon township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19
Chester township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-25
Crockery township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-25
Georgetown charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-23
Grand Haven charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Holland charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-25
Jamestown charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Olive township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19
Park township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Polkton charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Notes
Port Sheldon township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-08-25
Robinson township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07
Spring Lake township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-28
Tallmadge charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-09-19
Wright township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-02-16
Zeeland charter township	Township	Approved, expires 2028-01-25	Ottawa County (Kent County) (FEMA plan 108780)	2023-01-26	2028-01-25	482	this jurisdiction approved 2023-03-07

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

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

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

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Relatively Moderate	Relatively Moderate	\$44,257,575	\$72,205	\$289,394	\$44,619,175	23	
2	Tornado	Relatively Moderate	Relatively High	\$3,746,563	\$9,804	\$4,717,995	\$8,474,363	7	
3	Strong Wind	Relatively High	Very High	\$3,009,258	\$403,319	\$3,498,393	\$6,910,969	147	Includes 18 High Wind and 1 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).

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	Cold Wave	Relatively Moderate	Relatively Moderate	\$398	\$243,992	\$3,178,795	\$3,423,185	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
5	Hail	Relatively Moderate	Relatively Moderate	\$1,379,342	\$85,149	\$40,915	\$1,505,406	76	
6	Heat Wave	Relatively Low	Relatively Low	\$11,683	\$5	\$927,486	\$939,173	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
7	Lightning	Relatively Moderate	Relatively Moderate	\$77,036	n/a	\$789,821	\$866,857	3	
8	Earthquake	Relatively Low	Relatively Low	\$504,340	n/a	\$161,070	\$665,410		Storm Events does not record earthquakes.
9	Ice Storm	Relatively Moderate	Relatively Moderate	\$366,609	n/a	\$102,301	\$468,911	5	
10	Winter Weather	Relatively Moderate	Relatively High	\$40,610	\$6,915	\$269,460	\$316,985	154	Includes 1 Sleet record (outside NRI's Winter Weather definition).
11	Wildfire	Very Low	Very Low	\$23,298	\$30	\$2,316	\$25,644	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
12	Hurricane	Very Low	Very Low	\$4,800	\$9,785	\$3	\$14,589	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Coastal Flooding	Very Low	Very Low	\$11,344	n/a	\$228	\$11,572	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Landslide	Very Low	Very Low	\$612	n/a	\$1,470	\$2,083	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	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	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 245.02 (Relatively Low, 70.3); tract 249.02 (Relatively Low, 50.7); tract 231.02 (Relatively Low, 50.6)
Hurricane	tract 230.04 (Very Low, 35.2); tract 201 (Very Low, 33.6); tract 220.01 (Very Low, 32.1)
Landslide	tract 220.02 (Relatively Low, 87.3); tract 213.04 (Relatively Low, 87.3); tract 210 (Relatively Low, 86.7)
Tornado	tract 245.02 (Relatively High, 83.9); tract 229 (Relatively High, 81.2); tract 257 (Relatively High, 77.3)
Tsunami	no tract has a National Risk Index rating for this hazard
Wildfire	tract 220.01 (Very Low, 68.4); tract 214.02 (Very Low, 68.2); tract 204 (Very Low, 67.6)

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 245.02 is Census Tract 245.02). 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	0					
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					
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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	108 records, 1961 to 2026	0.75 in to 3 in (median 1 in); 108 with a recorded value	3 in hail, 1975-06-04	Hail, 2004-05-11, \$50,000 property; \$50,000 crops (2004 dollars)	Event records naming jurisdictions in the plan: Hudsonville city (16 records), Holland charter township (12 records), Holland city (12 records), Grand Haven charter township (9 records), Grand Haven city (9 records), Zeeland charter township (6 records), Zeeland city (6 records), Port Sheldon township (5 records), Jamestown charter township (4 records), Allendale charter township (3 records); and 5 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	0					
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)	5 records, 1997 to 2019 (5 zone-level)		Ice Storm, 2019-02-05, \$3,000,000 property; \$0 crops (2019 dollars); NWS zone MIZ056		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	23 records, 1996 to 2026 (4 zone-level)		Flash Flood, 2009-06-19, \$34,000,000 property; \$0 crops (2009 dollars)		Event records naming jurisdictions in the plan: Holland charter township (4 records), Holland city (4 records), Ferrysburg city (2 records), Grand Haven charter township (2 records), Grand Haven city (2 records), Hudsonville city (2 records), Jamestown charter township (2 records), Robinson township (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)	3 records, 1998		Lightning, 1998-04-21, \$60,000 property; crops not reported (1998 dollars)		Event records naming jurisdictions in the plan: Hudsonville city (1 record), Jamestown charter township (1 record).	Storm Events lists lightning with damage or casualties.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	19 records, 1997 to 2024 (19 zone-level)	42 kt (48 mph) to 69 kt (79 mph) (median 52.5 kt (60 mph)); 18 with a recorded value	69 kt (79 mph) measured gust, High Wind, 2021-12-16; NWS zone MIZ056	High Wind, 2017-03-08, \$15,000,000 property; \$0 crops (zone total, 2017 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	189 records, 1962 to 2026	50 kt (58 mph) to 87 kt (100 mph) (median 53 kt (61 mph)); 130 with a recorded value	87 kt (100 mph) estimated gust, Thunderstorm Wind, 2025-05-15	Thunderstorm Wind, 1998-05-31, \$34,630,000 property; \$10,000,000 crops (1998 dollars)	Event records naming jurisdictions in the plan: Grand Haven charter township (14 records), Grand Haven city (14 records), Holland charter township (13 records), Holland city (13 records), Hudsonville city (11 records), Zeeland charter township (10 records), Zeeland city (10 records), Spring Lake township (7 records), Spring Lake village (7 records), Coopersville city (6 records); and 5 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	25 records, 1956 to 2025	F/EF0 to F/EF5 (median F/EF1); 24 with a recorded value	F5 tornado, 1956-04-03, 15.1 mi path length (whole path, pre-1996), 400 yd wide, \$250,000 property; crops not recorded (1956 dollars), 14 direct deaths, 200 direct injuries	Tornado, 1956-04-03, \$2,500,000 property; crops not recorded (1956 dollars)	Event records naming jurisdictions in the plan: Coopersville city (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
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)	154 records, 1996 to 2026 (154 zone-level)		Heavy Snow, 2023-10-31, \$300,000 property; \$0 crops (2023 dollars); NWS zone MIZ056		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.

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 16 declarations covering 12 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
2020-03-27	2020-01-20	DR-4494-MI	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$5,410,440.94	
2020-03-13	2020-01-20	EM-3455-MI	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	same incident as DR-4494
2013-06-18	2013-04-16	DR-4121-MI	Major disaster	Flooding	Inland Flooding	\$266,242.40	
2008-07-14	2008-06-06	DR-1777-MI	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$391,954.12	
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	\$194,584.10	
1999-01-27	1999-01-02	EM-3137-MI	Emergency	Mi - Severe Weather 1/2 /99	Winter Weather	\$162,169.69	
1998-06-24	1998-05-29	DR-1226-MI	Major disaster	Severe Storms	Hazard not mapped (severe storm title names no single hazard); not counted	no Public Assistance recorded	
1986-09-18	1986-09-10	DR-774-MI	Major disaster	Severe Storms & Flooding	Inland Flooding	PA not declared for this county	
1980-09-08	1980-09-08	DR-631-MI	Major disaster	Severe Storms & 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	
1975-09-30	1975-09-30	DR-486-MI	Major disaster	Severe Storms, High Winds & Flooding	Inland Flooding (primary); also designated: Strong Wind	no Public Assistance recorded	
1965-04-14	1965-04-14	DR-190-MI	Major disaster	Tornadoes & Severe Storms	Tornado	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	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Drought	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	108	15	0	15	0	0	1955 to 2026-06-30	
Heat Wave	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
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	5	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	23	2	0	2	7	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	3	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	208	17	4	23	1	0	1955 to 2026-06-30	Includes 18 High Wind and 1 Strong Wind records.
Tornado	25	2	0	2	4	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

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	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Winter Weather	154	9	2	12	4	0	1996 to 2026-06-30	Includes 1 Sleet record.

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2025-05-15	Thunderstorm Wind	87 kt (100 mph) estimated gust	damage not reported	0, 0	LAKE MACATAWA	new since last plan; within last 5 years	B1-c worst recorded: Thunderstorm Wind
2023-10-31	Heavy Snow		\$300,000 property; \$0 crops (zone total, 2023 dollars)	0, 0	NWS zone MIZ056 (OTTAWA), zone-level	new since last plan; within last 5 years	B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2021-12-16	High Wind	69 kt (79 mph) measured gust	damage not reported	0, 0	NWS zone MIZ056 (OTTAWA), zone-level	within last 5 years	B1-c worst recorded: High Wind and Strong Wind
2019-02-05	Ice Storm		\$3,000,000 property; \$0 crops (zone total, 2019 dollars)	0, 0	NWS zone MIZ056 (OTTAWA), zone-level		B1-c worst recorded: Ice Storm
2017-03-08	High Wind	52 kt (60 mph) estimated gust	\$15,000,000 property; \$0 crops (zone total, 2017 dollars)	0, 0	NWS zone MIZ056 (OTTAWA), zone-level		B1-c most damaging: High Wind and Strong Wind
2009-06-19	Flash Flood		\$34,000,000 property; \$0 crops (2009 dollars)	0, 0	VRIESLAND to HUDSONVILLE		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2008-06-08	Thunderstorm Wind	61 kt (70 mph) estimated gust	damage not reported	1, 1	SPRING LAKE		deaths or injuries recorded
1998-05-31	Thunderstorm Wind	speed not recorded	\$34,630,000 property; \$10,000,000 crops (1998 dollars)	1, 20	GRAND HAVEN to HUDSONVILLE		deaths or injuries recorded
1998-04-21	Lightning		\$60,000 property; crops not reported (1998 dollars)	0, 0	NUNICA		B1-c worst recorded: Lightning
1975-06-04	Hail	3 in	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Hail
1956-04-03	Tornado	F5, 15.1 mi path length (whole path, pre-1996), 400 yd wide	\$250,000 property; crops not recorded (1956 dollars)	14, 200	location not recorded		deaths or injuries recorded
1956-04-03	Tornado	F3, 21.2 mi path length (whole path, pre-1996), 200 yd wide	\$2,500,000 property; crops not recorded (1956 dollars)	0, 0	location not recorded		B1-c most damaging: Tornado

The full list is in the Excel file, sheet "B1-d Storm Events history" (526 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	0.0126	events per year at a location (modeled)	about 0.013 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	0.999	event-days per year	about 0.999 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	6.72	2005-11-12 to 2024-11-12 (19 years)	countywide	No Storm Events cold wave record, 1996 to 2025.
Drought	0	event-days per year	none modeled		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.000706	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0706%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	1.2	events per year	about 1.2 per year	Highly likely	FEMA annualized frequency (modeled)	47.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	2.31	event-days per year	about 2.31 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	12	2005-11-12 to 2024-11-12 (19 years)	countywide	No Storm Events heat wave record, 1996 to 2025
Hurricane	0.0077	events per year	about 1 in 130 years	Unlikely	FEMA annualized frequency (modeled)	4	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	1.21	event-days per year	about 1.21 days per year	Likely	Storm Events event-days in 4 of 30 years, 1996 to 2025 (13.3%)	30	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.679	event-days per year	about 0.679 days per year	Likely	Storm Events event-days in 11 of 30 years, 1996 to 2025 (36.7%)	19	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	0.107	events per year (modeled)	about 1 in 9 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	32.6	days per year with a strike	about 32.6 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	2.17	events per year	about 2.17 per year	Highly likely	FEMA annualized frequency (modeled)	31	1986 to 2023 (38 years)	countywide	
Tornado	0.368	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	0.0000211	annual probability at a location	chance a given location in the county burns in a year: 0.00211%		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	32.2	event-days per year	about 32.2 days per year	Highly likely	Storm Events event-days in 28 of 30 years, 1996 to 2025 (93.3%)	216	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	27	30	0.9
Hail	2.00 in+	1996 to 2025	3	30	0.1
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	95	30	3.17
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	8	30	0.267
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	19	30	0.633
Tornado	EF0-1	1996 to 2025	6	30	0.2
Tornado	EF2-3	1996 to 2025	0	30	0
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	1	30	0.0333

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Coastal Flooding	26 of 64	68.1	73.5	80.1	Relatively Low 5, Very Low 21, No Rating 38
Cold Wave	64 of 64	22.0	43.6	67.4	Relatively Moderate 24, Relatively Low 40
Drought	0 of 64				No Rating 64
Earthquake	64 of 64	6.0	21.0	70.3	Relatively Low 5, Very Low 59
Hail	64 of 64	41.6	64.3	84.9	Relatively Moderate 23, Relatively Low 41
Heat Wave	64 of 64	3.1	14.0	41.0	Relatively Low 23, Very Low 41
Hurricane	64 of 64	13.6	18.7	35.2	Very Low 64
Ice Storm	64 of 64	19.6	49.2	82.6	Relatively Moderate 5, Relatively Low 52, Very Low 7
Inland Flooding	64 of 64	7.0	35.7	80.8	Relatively High 4, Relatively Moderate 21, Relatively Low 30, Very Low 9
Landslide	64 of 64	14.3	51.4	87.3	Relatively Low 5, Very Low 59
Lightning	64 of 64	12.7	44.5	78.3	Relatively High 1, Relatively Moderate 22, Relatively Low 40, Very Low 1
Strong Wind	64 of 64	51.8	86.1	97.6	Very High 3, Relatively High 44, Relatively Moderate 16, Relatively Low 1
Tornado	64 of 64	32.7	57.3	83.9	Relatively High 4, Relatively Moderate 41, Relatively Low 19
Tsunami	0 of 64				Insufficient Data 64
Wildfire	64 of 64	20.4	49.5	68.4	Very Low 64
Winter Weather	64 of 64	27.5	57.7	82.0	Relatively High 1, Relatively Moderate 52, Relatively Low 11

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
Ottawa County	County	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$14,529.97	0 total; 0 since its plan	Includes \$4,474.89 for declarations not counted as hazard incidents (DR-4494-MI).
Coopersville city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$8,934	10 total; 0 since its plan	
Ferrysburg city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	4 total; 0 since its plan	
Grand Haven city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	25 total; 0 since its plan	
Holland city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$112,757.18	29 total; 0 since its plan	Includes \$13,903.46 for declarations not counted as hazard incidents (DR-4494-MI).
Hudsonville city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$28,510.13	30 total; 10 since its plan	
Spring Lake village	Village	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 2	\$26,951.19	8 total; 2 since its plan	
Zeeland city	City	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 1	\$30,146.58	16 total; 2 since its plan	
Allendale charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	4 total; 0 since its plan	
Blendon township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$882	0 total; 0 since its plan	
Chester township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Crockery township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Georgetown charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 3	no Public Assistance recorded	0 total; 0 since its plan	
Grand Haven charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	25 total; 0 since its plan	
Holland charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 4	no Public Assistance recorded	29 total; 0 since its plan	
Jamestown charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	12 total; 1 since its plan	
Olive township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Park township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 4	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>	
Polkton charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Port Sheldon township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$2,737.50	11 total; 0 since its plan	
Robinson township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 4; any 11	no Public Assistance recorded	2 total; 0 since its plan	
Spring Lake township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 2	no Public Assistance recorded	8 total; 2 since its plan	
Tallmadge charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 1; any 1	no Public Assistance recorded	8 total; 3 since its plan	
Wright township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	0 total; 0 since its plan	
Zeeland charter township	Township	Approved, expires 2028-01-25	FMA RL 0, SRL 0; any 0	\$3,794.25	16 total; 2 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 2023-01-26 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Coastal Flooding	\$6,967,683,287	n/a	7,138	\$11,344	n/a	\$228	0.000163%				
Cold Wave	\$65,307,995,240	\$652,328,253	296,165	\$398	\$243,992	\$3,178,795	under 0.0001%				
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$115,008,250,011	n/a	296,200	\$504,340	n/a	\$161,070	0.000439%				
Hail	\$65,307,995,240	\$652,328,253	296,165	\$1,379,342	\$85,149	\$40,915	0.00211%	\$0			
Heat Wave	\$65,307,995,240	\$652,328,253	296,165	\$11,683	\$5	\$927,486	under 0.0001%				
Hurricane	\$64,435,109,924	\$630,169,149	293,259	\$4,800	\$9,785	\$3	under 0.0001%				
Ice Storm	\$65,302,662,344	n/a	296,134	\$366,609	n/a	\$102,301	0.000561%				
Inland Flooding	\$65,254,870,069	\$24,911,428	3,330	\$44,257,575	\$72,205	\$289,394	n/a (see note)	\$0			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	\$727,866,829	n/a	2,614	\$612	n/a	\$1,470	under 0.0001%				
Lightning	\$65,307,995,240	n/a	296,165	\$77,036	n/a	\$789,821	0.000118%				
Strong Wind	\$65,307,995,240	\$652,328,253	296,165	\$3,009,258	\$403,319	\$3,498,393	0.00461%	\$170,000	\$10,000		Storm Events damage since the plan includes 1 zone-level High Wind record (\$10,000): a NOAA non-thunderstorm wind type, outside NRI's Strong Wind definition.
Tornado	\$65,307,995,240	\$652,328,253	296,165	\$3,746,563	\$9,804	\$4,717,995	0.00574%	\$0			

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 2023-01-26 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Tsunami	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Wildfire	\$17,503,829,873	\$198,364,552	81,520	\$23,298	\$30	\$2,316	0.000133%				
Winter Weather	\$65,307,995,240	\$652,328,253	296,165	\$40,610	\$6,915	\$269,460	under 0.0001%		\$300,000		

Totals since 2023-01-26 (Storm Events through 2026-06-30): 35 county-coded records, 22 with a damage value recorded (including \$0), \$170,000; 10 zone-level records, 5 with a damage value recorded (including \$0), \$310,000 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	296,165
Building value (total, not at risk)	\$65,307,995,240
Agriculture value (total, not at risk)	\$652,328,253
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$54,264,671
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)	\$13,979,649
Social vulnerability rating	Very Low
Community resilience rating	Very High
NRI version	December 2025

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

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

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	5
Repetitive loss, NFIP insurance definition	29	Severe repetitive loss, NFIP insurance definition	5

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	5	29	5	29	0	7
of which: Park township	0	0	4	0	4	0	0
of which: Spring Lake township	0	0	2	0	2	0	0
of which: Spring Lake village	0	0	2	0	2	0	0
of which: Holland charter township	0	0	4	0	4	0	1
of which: Tallmadge charter township	0	1	1	1	1	0	0
of which: Wright township	0	0	1	0	1	0	0
of which: Georgetown charter township	0	0	3	0	3	0	1
of which: Robinson township	0	4	11	4	11	0	4
of which: Zeeland city	0	0	1	0	1	0	1
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>
Ottawa County	261895	0	0	0	0	0	0	0
Coopersville city	260491	0	0	0	0	0	0	0
Ferrysburg city	260184	0	0	0	0	0	0	0
Grand Haven city	260269	0	0	0	0	0	0	0
Holland city	260006	0	0	0	0	0	0	0
Hudsonville city	260493	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>
Spring Lake village	260282	0	0	2	0	2	0	0
Zeeland city	260983	0	0	1	0	1	0	1
Allendale charter township	260490	0	0	0	0	0	0	0
Blendon township	261005	0	0	0	0	0	0	0
Chester township	260829	0	0	0	0	0	0	0
Crockery township	260981	0	0	0	0	0	0	0
Georgetown charter township	260589	0	0	3	0	3	0	1
Grand Haven charter township	260270	0	0	0	0	0	0	0
Holland charter township	260492	0	0	4	0	4	0	1
Jamestown charter township	261001	0	0	0	0	0	0	0
Olive township	261006	0	0	0	0	0	0	0
Park township	260185	0	0	4	0	4	0	0
Polkton charter township	260923	0	0	0	0	0	0	0
Port Sheldon township	260278	0	0	0	0	0	0	0
Robinson township	260913	0	4	11	4	11	0	4
Spring Lake township	260281	0	0	2	0	2	0	0
Tallmadge charter township	260494	0	1	1	1	1	0	0
Wright township	260495	0	0	1	0	1	0	0
Zeeland charter township	260932	0	0	0	0	0	0	0

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

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

County repeat-flood properties by occupancy group

Sources: 1, 4

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	0	5	22	5	22	0	7
2 to 4 unit residential	0	0	0	0	0	0	0
other residential	0	0	2	0	2	0	0
non-residential	0	0	5	0	5	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 29 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_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_scsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scsd_national.zip), https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/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). Ottawa County, MI: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 26139). Automated baseline. <https://hazardplain.org/mi/26139/> 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