

Erie County, PA

Risk-assessment baseline packet

County FIPS: 42049 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: No county-level plan row in FEMA data.

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$38,237,604 a year), Strong Wind (\$2,420,774) and Tornado (\$2,050,564).

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; 42049 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

No county-level plan row in FEMA data

What changed since your last plan

Not available. No county-level plan row in FEMA data, so there is no approval date to count from.

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
Albion borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-13
Corry city	City	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-15
Cranesville borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-02
Edinboro borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-08
Elgin borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-10
Erie city	City	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-17
Girard borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-06-19
Lake City borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-08
McKean borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-22
Mill Village borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-08-02
North East borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-02-10
Platea borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-01
Union City borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-11
Waterford borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Wattsburg borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-08-07
Wesleyville borough	Organized Borough	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-09-27
Amity township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-15
Concord township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-02
Conneaut township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-01
Elk Creek township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-07-05
Fairview township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-18
Franklin township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-16
Girard township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-09
Greene township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-11
Greenfield township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-25
Harborcreek township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-19
Lawrence Park township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-10
LeBoeuf township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-24
McKean township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-04

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Millcreek township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-27
North East township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-06-05
Springfield township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-08
Summit township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-04-17
Union township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-09
Venango township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-01
Washington township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-02
Waterford township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-08-16
Wayne township	Township	Approved, expires 2028-04-09	Erie County Hazard Mitigation Plan (FEMA plan 108931)	2023-04-10	2028-04-09	557	FEMA tracker shows a plan in progress	this jurisdiction approved 2023-05-15

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	\$37,502,397	\$74,745	\$660,462	\$38,237,604	77	
2	Strong Wind	Relatively High	Relatively High	\$1,098,785	\$917	\$1,321,071	\$2,420,774	345	Includes 57 High Wind and 13 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
3	Tornado	Relatively Moderate	Relatively Low	\$1,359,804	\$2,260	\$688,501	\$2,050,564	9	
4	Lightning	Relatively High	Relatively High	\$13,367	n/a	\$1,933,165	\$1,946,532	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
5	Winter Weather	Relatively High	Relatively High	\$438,579	\$93	\$174,950	\$613,622	246	
6	Hurricane	Relatively Low	Relatively Low	\$536,830	\$36,524	\$24,256	\$597,610	0	Declared 3 times; no Storm Events record of this type.
7	Cold Wave	Relatively Low	Relatively Low	\$37,782	\$130,209	\$411,709	\$579,699	12	Includes 1 Frost/Freeze record (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
8	Earthquake	Relatively Low	Relatively Low	\$333,600	n/a	\$83,656	\$417,256		Storm Events does not record earthquakes.
9	Hail	Relatively Low	Relatively Low	\$136,307	\$102,919	\$20,242	\$259,467	143	
10	Heat Wave	Relatively Low	Relatively Low	under \$1	\$2,136	\$214,007	\$216,143	1	
11	Ice Storm	Relatively Moderate	Relatively Moderate	\$67,796	n/a	\$133,940	\$201,736	1	

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
12	Wildfire	Very Low	Very Low	\$16,054	\$15	\$3,503	\$19,572	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Coastal Flooding	Very Low	Very Low	\$8,343	n/a	\$125	\$8,468	2	
14	Landslide	Very Low	Very Low	\$368	n/a	\$494	\$862	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	5	
	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 lightning, 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 1 (Relatively Low, 60.7); tract 4 (Relatively Low, 45.1); tract 122.02 (Very Low, 36.8)
Hurricane	tract 119 (Relatively Low, 58.1); tract 112.02 (Relatively Low, 57.3); tract 121 (Relatively Low, 56.0)
Landslide	tract 121 (Relatively Low, 84.4); tract 118.02 (Relatively Low, 83.4); tract 120.01 (Very Low, 78.1)
Tornado	tract 119 (Relatively Low, 50.9); tract 112.02 (Relatively Low, 50.6); tract 122.02 (Relatively Low, 49.0)
Tsunami	no tract has a National Risk Index rating for this hazard
Wildfire	tract 112.01 (Relatively Low, 71.1); tract 121 (Relatively Low, 69.6); tract 122.01 (Relatively Low, 69.0)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 1 is Census Tract 1). 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)	2 records, 1997		Storm Surge/Tide, 1997-03-14, \$100,000 property; crops not reported (1997 dollars)		Event records naming jurisdictions in the plan: Erie city (1 record).	Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	11 records, 1996 to 2022 (11 zone-level)	1 day to 11 days (median 2 days); 11 with a recorded value	11 consecutive days, 1997-01-10 to 1997-01-20, zone-level	Extreme Cold/Wind Chill, 2012-04-29, \$500,000 property; \$0 crops (zone total, 2012 dollars)	Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	1 record, 2021 (1 zone-level)		Frost/Freeze, 2021-04-20, \$3,000,000 crop damage (2021 dollars); NWS zone PAZ002		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	5 records, 1996 to 1999 (5 zone-level)	31 days to 122 days (median 76.5 days); 2 with a recorded value	122 days (4 months), 1999-06-01 to 1999-09-30, a run of 4 consecutive Storm Events drought records, zone-level		Countywide (zone-level records).	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	206 records, 1959 to 2026	0.75 in to 4 in (median 0.88 in); 206 with a recorded value	4 in hail, 1980-07-08	Hail, 2001-07-10, property not reported; \$2,000,000 crops (2001 dollars)	Event records naming jurisdictions in the plan: Erie city (29 records), Edinboro borough (20 records), Waterford borough (18 records), Waterford township (18 records), Corry city (12 records), Union City borough (8 records), Wattsburg borough (8 records), Girard borough (5 records), Girard township (5 records), Lake City borough (5 records); and 9 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	1 record, 1999 (1 zone-level)	31 days; 1 with a recorded value	July 1999 (1 monthly summary record), zone-level		Countywide (zone-level records).	
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Ice Storm	Sperry-Piltz ice scale (local data)	1 record, 1997 (1 zone-level)		Ice Storm, 1997-11-14, \$30,000 property; crops not reported (1997 dollars); NWS zone PAZ002		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	77 records, 1996 to 2025 (11 zone-level)		Lakeshore Flood, 2019-10-31, \$8,000,000 property; \$0 crops (2019 dollars); NWS zone PAZ001		Event records naming jurisdictions in the plan: Erie city (8 records), Union City borough (5 records), Wesleyville borough (3 records), Corry city (2 records), Edinboro borough (2 records), Lawrence Park township (2 records), North East borough (2 records), North East township (2 records), Waterford borough (2 records), Waterford township (2 records); and 3 more jurisdictions (see the Excel file). Zone-level records (11) 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)	0					Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	70 records, 1996 to 2024 (70 zone-level)	35 kt (40 mph) to 73 kt (84 mph) (median 50 kt (58 mph)); 58 with a recorded value	73 kt (84 mph) measured gust, High Wind, 2008-01-09; NWS zone PAZ001	High Wind, 2008-09-14, \$1,000,000 property; \$0 crops (zone total, 2008 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	398 records, 1956 to 2026	50 kt (58 mph) to 74 kt (85 mph) (median 50 kt (58 mph)); 264 with a recorded value	74 kt (85 mph) measured gust, Thunderstorm Wind, 2007-06-08	Thunderstorm Wind, 1996-04-12, \$800,000 property; crops not reported (1996 dollars)	Event records naming jurisdictions in the plan: Erie city (55 records), Edinboro borough (24 records), Corry city (23 records), Union City borough (20 records), Waterford borough (12 records), Waterford township (12 records), Girard borough (11 records), Girard township (11 records), Wesleyville borough (11 records), Albion borough (9 records); and 12 more jurisdictions (see the Excel file).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Tornado	Enhanced Fujita (Fujita before Feb 2007)	24 records, 1952 to 2025	F/EF0 to F/EF4 (median F/EF1); 24 with a recorded value	F4 tornado, 1985-05-31, 12 mi path length (whole path, pre-1996), 400 yd wide, \$25,000,000 property; crops not recorded (1985 dollars), 12 direct deaths, 82 direct injuries		Event records naming jurisdictions in the plan: Elgin borough (3 records), Edinboro borough (1 record), Union City borough (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)	246 records, 1996 to 2025 (245 zone- level)		Lake-Effect Snow, 2017-12-24, \$15,000,000 property; \$0 crops (2017 dollars); NWS zone PAZ001		No event record names a jurisdiction in the plan. Zone-level records (245) apply countywide.	

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: 11 declarations covering 7 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

No county-level plan row in FEMA data, so there is no approval date to count from.

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
2020-03-30	2020-01-20	DR-4506-PA	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$3,661,152.14	
2020-03-13	2020-01-20	EM-3441-PA	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	same incident as DR-4506
2012-10-29	2012-10-26	EM-3356-PA	Emergency	Hurricane Sandy	Hurricane	no Public Assistance recorded	
2005-09-10	2005-08-29	EM-3235-PA	Emergency	Hurricane Katrina	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded	
2004-09-19	2004-09-17	DR-1557-PA	Major disaster	Tropical Depression Ivan	Hurricane: designated for Hazard Mitigation only (no Public or Individual Assistance for this county); not counted	PA not declared for this county	
2004-09-19	2004-09-08	DR-1555-PA	Major disaster	Severe Storms and Flooding Associated with Tropical Depression Frances	Hurricane; Inland Flooding	PA not declared for this county	
1996-01-21	1996-01-19	DR-1093-PA	Major disaster	Severe Storms and Flooding	Inland Flooding	PA not declared for this county	
1993-03-16	1993-03-13	EM-3105-PA	Emergency	Severe Snowfall & Winter Storm	Winter Weather	no Public Assistance recorded	
1985-06-03	1985-05-31	DR-737-PA	Major disaster	Severe Storms, High Winds & Tornadoes	Tornado (primary); also designated: Strong Wind	no Public Assistance recorded	
1977-01-29	1977-01-29	EM-3026-PA	Emergency	Snowstorms	Winter Weather	no Public Assistance recorded	
1972-06-23	1972-06-23	DR-340-PA	Major disaster	Tropical Storm Agnes	Inland Flooding (primary); also designated: Hurricane	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
2003-08-23	2003-07-21	DR-1485-PA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado
1959-01-23	1959-01-23	DR-89-PA	Major disaster	Floods	Inland Flooding
1956-08-09	1956-08-09	DR-61-PA	Major disaster	Storm	Hazard not mapped (severe storm title names no single hazard); not counted
1956-05-21	1956-05-21	DR-58-PA	Major disaster	Severe Storm	Hazard not mapped (severe storm title names no single hazard); not counted
1956-03-15	1956-03-15	DR-51-PA	Major disaster	Flood	Inland Flooding
1955-08-20	1955-08-20	DR-40-PA	Major disaster	Floods & Rains	Inland Flooding

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

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval records	In the 12 months before plan approval records	Last 5 years records	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Coastal Flooding	2			0	0		1996 to 2026-06-30	
Cold Wave	12			1	0		1996 to 2026-06-30	Includes 1 Frost/Freeze record.
Drought	5			0	0		1996 to 2026-06-30	
Earthquake	0			0	0			Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	206			15	0		1955 to 2026-06-30	
Heat Wave	1			0	0		1996 to 2026-06-30	
Hurricane	0			0	3		1996 to 2026-06-30	No Storm Events records of this type; 3 federal declared incidents (see declarations table)
Ice Storm	1			0	0		1996 to 2026-06-30	
Inland Flooding	77			3	3		1996 to 2026-06-30	
Landslide	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Lightning	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Strong Wind	468			42	1		1955 to 2026-06-30	Includes 57 High Wind and 13 Strong Wind records.

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
Tornado	24			3	1		1950 to 2026-06-30	
Tsunami	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Wildfire	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Winter Weather	246			30	2		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
2021-04-20	Frost/Freeze		\$0 property; \$3,000,000 crops (zone total, 2021 dollars)	0, 0	NWS zone PAZ002 (SOUTHERN ERIE), zone-level	B1-c worst recorded: Frost/Freeze
2019-10-31	Lakeshore Flood		\$8,000,000 property; \$0 crops (zone total, 2019 dollars)	0, 0	NWS zone PAZ001 (NORTHERN ERIE), zone-level	B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2017-12-24	Lake-Effect Snow		\$15,000,000 property; \$0 crops (zone total, 2017 dollars)	0, 0	NWS zone PAZ001 (NORTHERN ERIE), zone-level	B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2017-11-05	Flash Flood		\$270,000 property; \$0 crops (2017 dollars)	2, 0	EAGLEHURST to SWANVILLE	deaths or injuries recorded
2010-06-06	Thunderstorm Wind	52 kt (60 mph) estimated gust	\$150,000 property; \$0 crops (2010 dollars)	1, 0	NORTH SPRINGFIELD to SPRINGFIELD STATION	deaths or injuries recorded
2008-01-09	High Wind	73 kt (84 mph) measured gust	\$15,000 property; \$0 crops (zone total, 2008 dollars)	0, 0	NWS zone PAZ001 (NORTHERN ERIE), zone-level	B1-c worst recorded: High Wind and Strong Wind
2007-06-08	Thunderstorm Wind	74 kt (85 mph) measured gust	\$0 property; \$0 crops (2007 dollars)	0, 0	NORTH EAST	B1-c worst recorded: Thunderstorm Wind
1999-07-01	Heat		damage not reported	0, 0	NWS zone PAZ001 (NORTHERN ERIE), zone-level	B1-c worst recorded: Excessive Heat, Heat
1997-11-14	Ice Storm		\$30,000 property; crops not reported (zone total, 1997 dollars)	0, 0	NWS zone PAZ002 (SOUTHERN ERIE), zone-level	B1-c worst recorded: Ice Storm
1997-01-10	Cold/Wind Chill		\$15,000 property; crops not reported (zone total, 1997 dollars)	0, 0	NWS zone PAZ001 (NORTHERN ERIE), zone-level	B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
1985-05-31	Tornado	F4, 12 mi path length (whole path, pre-1996), 400 yd wide	\$25,000,000 property; crops not recorded (1985 dollars)	12, 82	location not recorded	deaths or injuries recorded
1980-07-08	Hail	4 in	damage not recorded (pre-1996 record)	0, 0	location not recorded	B1-c worst recorded: Hail

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,042 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).

FEMA's declaration data list no tribal or special-area declarations for this state.

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	0.0159	events per year at a location (modeled)	about 0.016 per year at a given location in the county	Possible	Storm Events records in 1 of 30 years, 1996 to 2025 (3.33%)	not shown	modeled	see B1-f	
Cold Wave	3.62	event-days per year	about 3.62 days per year	Likely	Storm Events event-days in 8 of 30 years, 1996 to 2025 (26.7%)	35.5	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	0.000785	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0785%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	1.56	events per year	about 1.56 per year	Highly likely	FEMA annualized frequency (modeled)	60.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	0.885	event-days per year	about 0.885 days per year	Possible	Storm Events event-days in 1 of 30 years, 1996 to 2025 (3.33%)	9.2	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.03	events per year	about 1 in 33 years	Possible	FEMA annualized frequency (modeled)	10	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	1.29	event-days per year	about 1.29 days per year	Possible	Storm Events event-days in 1 of 30 years, 1996 to 2025 (3.33%)	46	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	2.14	event-days per year	about 2.14 days per year	Likely	Storm Events event-days in 21 of 30 years, 1996 to 2025 (70%)	60	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	0.262	events per year (modeled)	about 1 in 4 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	36.6	days per year with a strike	about 36.6 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	1.35	events per year	about 1.35 per year	Highly likely	FEMA annualized frequency (modeled)	27	1986 to 2023 (38 years)	countywide	
Tornado	0.316	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	0.000067	annual probability at a location	chance a given location in the county burns in a year: 0.0067%		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	29.8	event-days per year	about 29.8 days per year	Highly likely	Storm Events event-days in 30 of 30 years, 1996 to 2025 (100%)	292	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	59	30	1.97
Hail	2.00 in+	1996 to 2025	3	30	0.1
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	224	30	7.47
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	3	30	0.1
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	39	30	1.3
Tornado	EF0-1	1996 to 2025	7	30	0.233
Tornado	EF2-3	1996 to 2025	2	30	0.0667
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	17 of 73	70.5	75.0	80.4	Relatively Low 6, Very Low 11, No Rating 56
Cold Wave	73 of 73	18.4	21.9	37.6	Relatively Low 71, Very Low 2
Drought	0 of 73				No Rating 73
Earthquake	73 of 73	2.3	16.6	60.7	Relatively Low 2, Very Low 71
Hail	73 of 73	13.9	32.9	66.1	Relatively Low 24, Very Low 49
Heat Wave	73 of 73	2.3	3.7	8.5	Very Low 73
Hurricane	73 of 73	30.8	50.8	58.1	Relatively Low 30, Very Low 43
Ice Storm	73 of 73	13.8	34.5	56.2	Relatively Low 40, Very Low 33
Inland Flooding	73 of 73	0.5	32.2	94.9	Relatively High 7, Relatively Moderate 17, Relatively Low 32, Very Low 17
Landslide	73 of 73	10.0	36.5	84.4	Relatively Low 2, Very Low 71
Lightning	73 of 73	43.8	75.8	94.7	Relatively High 34, Relatively Moderate 38, Relatively Low 1
Strong Wind	73 of 73	46.7	69.2	89.0	Relatively High 6, Relatively Moderate 58, Relatively Low 9
Tornado	73 of 73	20.5	35.6	50.9	Relatively Low 60, Very Low 13
Tsunami	0 of 73				Insufficient Data 73
Wildfire	63 of 73	19.3	47.2	71.1	Relatively Low 4, Very Low 59, No Rating 10
Winter Weather	73 of 73	43.2	77.4	93.3	Relatively High 33, Relatively Moderate 39, Relatively Low 1

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	Public Assistance to this jurisdiction	Event records naming this place
			<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>
Albion borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	14 total; 0 since its plan
Corry city	City	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	37 total; 2 since its plan
Cranesville borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	6 total; 1 since its plan

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place
			FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition	FEMA records matched by applicant name; federal share obligated, nominal dollars	all years; since its plan
Edinboro borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	47 total; 1 since its plan
Elgin borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	10 total; 4 since its plan
Erie city	City	Approved, expires 2028-04-09	FMA RL 0, SRL 1; any 4	no Public Assistance recorded	93 total; 3 since its plan
Girard borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	16 total; 2 since its plan
Lake City borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 2	no Public Assistance recorded	13 total; 1 since its plan
McKean borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	1 total; 0 since its plan
Mill Village borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
North East borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 3	no Public Assistance recorded	14 total; 1 since its plan
Platea borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 1 since its plan
Union City borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	34 total; 4 since its plan
Waterford borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	32 total; 2 since its plan
Wattsburg borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	19 total; 0 since its plan
Wesleyville borough	Organized Borough	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	15 total; 4 since its plan
Amity township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Concord township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Conneaut township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Elk Creek township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Fairview township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 2	no Public Assistance recorded	8 total; 1 since its plan
Franklin township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Girard township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	16 total; 2 since its plan
Greene township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Greenfield township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Harborcreek township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	4 total; 0 since its plan
Lawrence Park township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	8 total; 4 since its plan
LeBoeuf township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
McKean township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 1; any 2	no Public Assistance recorded	1 total; 0 since its plan
Millcreek township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 1; any 16	no Public Assistance recorded	0 total; 0 since its plan
North East township	Township	Approved, expires 2028-04-09	FMA RL 1, SRL 1; any 15	no Public Assistance recorded	14 total; 1 since its plan
Springfield township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	0 total; 0 since its plan
Summit township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	0 total; 0 since its plan
Union township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Venango township	Township	Approved, expires 2028-04-09	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
			<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>
Washington township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan
Waterford township	Township	Approved, expires 2028-04-09	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	32 total; 2 since its plan
Wayne township	Township	Approved, expires 2028-04-09	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.

No county-level plan row in FEMA data, so there is no approval date to count from.

- 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 plan <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	\$1,218,379,776	n/a	3,175	\$8,343	n/a	\$125	0.000685%				
Cold Wave	\$54,843,269,791	\$105,612,751	270,695	\$37,782	\$130,209	\$411,709	under 0.0001%				
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$99,335,749,885	n/a	270,876	\$333,600	n/a	\$83,656	0.000336%				
Hail	\$54,843,269,791	\$105,612,751	270,695	\$136,307	\$102,919	\$20,242	0.000249%				
Heat Wave	\$54,843,269,791	\$105,612,751	270,695	under \$1	\$2,136	\$214,007	under 0.0001%				
Hurricane	\$54,780,066,724	\$103,058,707	270,322	\$536,830	\$36,524	\$24,256	0.00098%				
Ice Storm	\$54,806,852,425	n/a	270,459	\$67,796	n/a	\$133,940	0.000124%				

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 plan <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	\$54,817,870,204	\$5,838,531	2,607	\$37,502,397	\$74,745	\$660,462	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	\$625,927,300	n/a	2,802	\$368	n/a	\$494	under 0.0001%				
Lightning	\$54,843,269,791	n/a	270,695	\$13,367	n/a	\$1,933,165	under 0.0001%				
Strong Wind	\$54,843,269,791	\$105,612,751	270,695	\$1,098,785	\$917	\$1,321,071	0.002%				
Tornado	\$54,843,269,791	\$105,612,751	270,695	\$1,359,804	\$2,260	\$688,501	0.00248%				
Tsunami	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Wildfire	\$10,158,626,318	\$28,789,670	56,224	\$16,054	\$15	\$3,503	0.000158%				
Winter Weather	\$54,843,269,791	\$105,612,751	270,695	\$438,579	\$93	\$174,950	0.0008%				

Totals since the plan: not available. No county-level plan row in FEMA data, so there is no approval date to count from.

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	270,695
Building value (total, not at risk)	\$54,843,269,791
Agriculture value (total, not at risk)	\$105,612,751
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$41,899,831
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)	\$5,670,079
Social vulnerability rating	Relatively Moderate
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)	1	Severe repetitive loss, FMA definition (44 CFR 77.2)	4
Repetitive loss, NFIP insurance definition	48	Severe repetitive loss, NFIP insurance definition	3

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	1	4	48	3	49	1	12
of which: Erie city	0	1	3	0	4	1	2
of which: Fairview township	0	0	2	0	2	0	1
of which: Millcreek township	0	1	16	1	16	0	5
of which: Harborcreek township	0	0	1	0	1	0	0

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
of which: North East borough	0	0	3	0	3	0	0
of which: Girard township	0	0	1	0	1	0	1
of which: North East township	1	1	15	1	15	0	2
of which: Springfield township	0	0	1	0	1	0	1
of which: Lake City borough	0	0	2	0	2	0	0
of which: McKean borough	0	0	1	0	1	0	0
of which: Summit township	0	0	1	0	1	0	0
of which: McKean township	0	1	2	1	2	0	0
Statewide, no county in FEMA's file	0	0	1	0	1	0	0

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

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

Sources: 1, 4

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
Albion borough	422409	0	0	0	0	0	0	0
Corry city	420447	0	0	0	0	0	0	0
Cranesville borough	421356	0	0	0	0	0	0	0
Edinboro borough	420448	0	0	0	0	0	0	0
Elgin borough	422411	0	0	0	0	0	0	0
Erie city	420449	0	1	3	0	4	1	2
Girard borough	422413	0	0	0	0	0	0	0
Lake City borough	422414	0	0	2	0	2	0	0
McKean borough	422416	0	0	1	0	1	0	0
Mill Village borough	422417	0	0	0	0	0	0	0
North East borough	421359	0	0	3	0	3	0	0
Platea borough	422699	0	0	0	0	0	0	0
Union City borough	420453	0	0	0	0	0	0	0
Waterford borough	420454	0	0	0	0	0	0	0
Wattsburg borough	420455	0	0	0	0	0	0	0
Wesleyville borough	420456	0	0	0	0	0	0	0
Amity township	421360	0	0	0	0	0	0	0
Concord township	422410	0	0	0	0	0	0	0
Conneaut township	421361	0	0	0	0	0	0	0
Elk Creek township	422412	0	0	0	0	0	0	0
Fairview township	420450	0	0	2	0	2	0	1

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>
Franklin township	421362	0	0	0	0	0	0	0
Girard township	421363	0	0	1	0	1	0	1
Greene township	421364	0	0	0	0	0	0	0
Greenfield township	421365	0	0	0	0	0	0	0
Harborcreek township	421144	0	0	1	0	1	0	0
Lawrence Park township	420451	0	0	0	0	0	0	0
LeBoeuf township	422415	0	0	0	0	0	0	0
McKean township	422623	0	1	2	1	2	0	0
Millcreek township	420452	0	1	16	1	16	0	5
North East township	421368	1	1	15	1	15	0	2
Springfield township	421369	0	0	1	0	1	0	1
Summit township	422418	0	0	1	0	1	0	0
Union township	421370	0	0	0	0	0	0	0
Venango township	421371	0	0	0	0	0	0	0
Washington township	421372	0	0	0	0	0	0	0
Waterford township	422419	0	0	0	0	0	0	0
Wayne township	421373	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	1	2	37	2	37	0	7
2 to 4 unit residential	0	0	1	0	1	0	1
other residential	0	0	0	0	0	0	0
non-residential	0	2	10	1	11	1	4
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 47 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.

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Reuse, citation and corrections

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Cite this: Hazard Plain (2026). Erie County, PA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 42049). Automated baseline. <https://hazardplain.org/pa/42049/> 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