

Crawford County, PA

Risk-assessment baseline packet

County FIPS: 42039 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 2030-03-03. Plan: Crawford County Hazard Mitigation Plan (FEMA plan 110331), approved 2025-03-04. Since the plan was approved on 2025-03-04: no new hazard declaration and 35 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 (\$22,353,407 a year), Strong Wind (\$1,255,567) and Tornado (\$1,017,942). 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; 42039 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 2025-03-04), page 2
- 4. B1-a: hazard identification, page 6
- 5. B1-b: hazard location, page 7
- 6. B1-c: hazard extent, page 8
- 7. B1-d: previous occurrences, page 10
- 8. B1-e: probability of future events, page 14
- 9. B1-f: hazards that vary across jurisdictions, page 16
- 10. B2-a and B2-b: vulnerability and potential impacts, page 20
- 11. B2-a: vulnerability (county context), page 22
- 12. B2-c: repetitive loss properties, page 22
- 13. Sources, what the plan adds, disclaimer and citation, page 25

Plan clock

Status:	Approved, expires 2030-03-03	Plan:	Crawford County Hazard Mitigation Plan (FEMA plan 110331)
Approved:	2025-03-04	Days to expiry:	1,250

What changed since your last plan (approved 2025-03-04)

New federal declarations:	none	Storm Events records since approval:	35 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 0, SRL 2 (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: 52 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
Crawford County	County	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-12
Blooming Valley borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Cambridge Springs borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-03
Centerville borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-12
Cochranon borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-03
Conneaut Lake borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-04-30
Conneautville borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Hydetown borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-03
Linesville borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-04-07
Meadville city	City	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	
Saegertown borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Spartansburg borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-07-01
Springboro borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-07-14
Titusville city	City	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-19
Townville borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
Venango borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-06
Woodcock borough	Organized Borough	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-05
Athens township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-06-08
Beaver township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Notes
						negative = days since expiry	
Bloomfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Cambridge township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Conneaut township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
Cussewago township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
East Fairfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-07-14
East Fallowfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-12
East Mead township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Fairfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	
Greenwood township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-03
Hayfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
North Shenango township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-04-08
Oil Creek township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-08
Pine township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Randolph township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
Richmond township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-06-05
Rockdale township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-03
Rome township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-12
Sadsbury township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
South Shenango township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
Sparta township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-10
Spring township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
Steuben township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Notes
Summerhill township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-06
Summit township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	
Troy township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	
Union township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
Venango township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	
Vernon township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-06
Wayne township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-10
West Fallowfield township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-07-17
West Mead township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11
West Shenango township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-05-06
Woodcock township	Township	Approved, expires 2030-03-03	Crawford County Hazard Mitigation Plan (FEMA plan 110331)	2025-03-04	2030-03-03	1,250	this jurisdiction approved 2025-03-11

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	\$21,635,821	\$740	\$716,845	\$22,353,407	78	
2	Strong Wind	Relatively High	Relatively Moderate	\$896,308	\$2,064	\$357,195	\$1,255,567	447	Includes 41 High Wind and 10 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
3	Tornado	Relatively Low	Relatively Low	\$805,498	\$3,681	\$208,763	\$1,017,942	21	
4	Lightning	Relatively High	Relatively Moderate	\$9,339	n/a	\$636,071	\$645,411	2	
5	Hurricane	Relatively Low	Relatively Low	\$277,066	\$48,777	\$8,131	\$333,974	0	Declared 4 times; no Storm Events record of this type.
6	Winter Weather	Relatively High	Relatively High	\$240,663	\$108	\$43,367	\$284,138	170	
7	Hail	Relatively Low	Relatively Low	\$145,504	\$110,011	\$12,728	\$268,243	150	
8	Cold Wave	Very Low	Relatively Low	\$10,075	\$27,731	\$174,547	\$212,353	11	
9	Earthquake	Very Low	Very Low	\$164,658	n/a	\$45,672	\$210,330		Storm Events does not record earthquakes.
10	Ice Storm	Relatively Low	Relatively Low	\$42,254	n/a	\$48,794	\$91,048	1	
11	Heat Wave	Very Low	Very Low	\$2	\$2,836	\$69,176	\$72,014	1	
12	Wildfire	Very Low	Very Low	\$13,630	\$16	\$1,646	\$15,292	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
13	Landslide	Very Low	Very Low	\$463	n/a	\$1,088	\$1,552	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Drought	No Rating	No Expected Annual Losses	n/a	\$0	n/a	\$0	5	

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

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

Local data needed: state and local wildfire and landslide records (Storm Events records these hazards only in part).

Not applicable to this county per NRI, with no federal declaration and no Storm Events record since 1996: avalanche, coastal flooding, tsunami and volcanic activity. That is the evidence for leaving them out of the plan.

The state hazard mitigation plan also lists hazards for this county; FEMA asks the plan to explain any hazard it leaves out.

Supports FEMA checklist item B1-b: hazard location

Affects the whole county (national data give no location within it): Cold Wave, Drought, Hail, Heat Wave, Ice Storm, Lightning, Strong Wind and Winter Weather.

Inland Flooding: The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center (<https://msc.fema.gov>) for this county.

Hazards that vary within the county: highest-rated census tracts

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 1103 (Relatively Low, 51.1); tract 1101 (Very Low, 40.8); tract 1108 (Very Low, 37.3)
Hurricane	tract 1101 (Relatively Low, 66.2); tract 1103 (Relatively Low, 63.7); tract 1108 (Relatively Low, 58.8)
Landslide	tract 1113 (Relatively Low, 88.2); tract 1101 (Relatively Low, 86.6); tract 1118 (Relatively Low, 85.5)
Tornado	tract 1101 (Relatively Moderate, 63.4); tract 1103 (Relatively Moderate, 56.6); tract 1118 (Relatively Low, 52.9)
Wildfire	tract 1101 (Relatively Low, 73.5); tract 1103 (Relatively Low, 72.8); tract 1105.01 (Relatively Low, 72.0)

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 1103 is Census Tract 1103). FEMA's Resilience Analysis and Planning Tool maps the National Risk Index for every tract: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

Supports FEMA checklist item B1-c: hazard extent

Extent: scale, observed range and worst recorded event per hazard

Sources: 6, 7

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	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, \$200,000 property; \$0 crops (zone total, 2012 dollars)	Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					
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)	186 records, 1970 to 2026	0.75 in to 4 in (median 1 in); 186 with a recorded value	4 in hail, 2010-06-04	Hail, 1994-09-25, \$500,000 property; crops not recorded (1994 dollars)	Event records naming jurisdictions in the plan: Meadville city (27 records), Cambridge Springs borough (16 records), Conneautville borough (10 records), Springboro borough (8 records), Cochranon borough (7 records), Conneaut Lake borough (7 records), Linesville borough (7 records), Titusville city (7 records), Spartansburg borough (6 records), Saegertown borough (5 records); and 7 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.
Ice Storm	Sperry-Piltz ice scale (local data)	1 record, 1997 (1 zone-level)		No damage reported in 1 record.		Countywide (zone-level records).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	78 records, 1996 to 2022 (11 zone-level)		Flash Flood, 2003-07-21, \$30,000,000 property; crops not reported (2003 dollars), 1 direct death		Event records naming jurisdictions in the plan: Meadville city (9 records), Cambridge Springs borough (3 records), Saegertown borough (3 records), Cochranon borough (2 records), Hydetown borough (2 records), Titusville city (2 records), Venango borough (2 records), Venango township (2 records), Conneaut Lake borough (1 record), Conneautville borough (1 record); and 1 more jurisdiction (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)	2 records, 1998 to 1999		Lightning, 1998-06-12, \$5,000 property; crops not reported (1998 dollars)		Event records naming jurisdictions in the plan: Cochranon borough (1 record), Meadville city (1 record).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	51 records, 1996 to 2024 (51 zone-level)	35 kt (40 mph) to 60 kt (69 mph) (median 50 kt (58 mph)); 41 with a recorded value	60 kt (69 mph) estimated gust, High Wind, 2006-10-28; NWS zone PAZ003	High Wind, 2008-09-14, \$1,500,000 property; \$0 crops (zone total, 2008 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	497 records, 1955 to 2026	50 kt (58 mph) to 87 kt (100 mph) (median 50 kt (58 mph)); 347 with a recorded value	87 kt (100 mph) estimated gust, Thunderstorm Wind, 2023-03-25	Thunderstorm Wind, 1999-07-09, \$1,400,000 property; crops not reported (1999 dollars)	Event records naming jurisdictions in the plan: Meadville city (62 records), Cochranon borough (29 records), Cambridge Springs borough (22 records), Conneautville borough (22 records), Conneaut Lake borough (18 records), Linesville borough (18 records), Saegertown borough (18 records), Titusville city (18 records), Springboro borough (13 records), Spartansburg borough (9 records); and 8 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)	44 records, 1950 to 2026	F/EF0 to F/EF4 (median F/EF1); 43 with a recorded value	F4 tornado, 1985-05-31, 22.5 mi path length (whole path, pre-1996), 350 yd wide, \$25,000,000 property; crops not recorded (1985 dollars), 8 direct deaths, 75 direct injuries	Tornado, 1980-07-21, \$250,000,000 property; crops not recorded (1980 dollars)	Event records naming jurisdictions in the plan: Conneautville borough (3 records), Woodcock borough (3 records), Linesville borough (2 records), Springboro borough (2 records), Cochranon borough (1 record), Meadville city (1 record), Saegertown borough (1 record), Titusville city (1 record), Townville 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).
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	170 records, 1996 to 2025 (169 zone- level)		Winter Storm, 2004-12-22, \$1,200,000 property; crops not reported (2004 dollars); NWS zone PAZ003		No event record names a jurisdiction in the plan. Zone-level records (169) 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 and lightning.

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records from zones that no NWS zone-county file places in this county (mostly before 2020) are not counted here (the Methods page explains the zone matching).

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

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: 15 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
2020-03-30	2020-01-20	DR-4506-PA	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$2,971,733.86	
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
2013-10-01	2013-06-26	DR-4149-PA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$538,777.01	
2012-10-29	2012-10-26	EM-3356-PA	Emergency	Hurricane Sandy	Hurricane	no Public Assistance recorded	

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Notes
						<i>federal share obligated, nominal dollars</i>	
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	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	
2003-08-23	2003-07-21	DR-1485-PA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$1,470,513.31	
1996-07-26	1996-07-19	DR-1130-PA	Major disaster	Severe Storms, Flooding, and Tornadoes	Inland Flooding (primary); also designated: Tornado	no Public Assistance recorded	
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	
1981-06-15	1981-06-15	DR-641-PA	Major disaster	Severe Storms & Flooding	Inland Flooding	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
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 <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Cold Wave	11	0	0	1	0	0	1996 to 2026-06-30	
Drought	5	0	0	0	0	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	186	2	4	10	0	0	1955 to 2026-06-30	
Heat Wave	1	0	0	0	0	0	1996 to 2026-06-30	
Hurricane	0	0	0	0	4	0	1996 to 2026-06-30	No Storm Events records of this type; 4 federal declared incidents (see declarations table)
Ice Storm	1	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	78	0	0	1	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	2	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	548	26	25	78	1	0	1955 to 2026-06-30	Includes 41 High Wind and 10 Strong Wind records.
Tornado	44	5	0	5	4	0	1950 to 2026-06-30	
Wildfire	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Winter Weather	170	2	6	17	2	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2023-03-25	Thunderstorm Wind	87 kt (100 mph) estimated gust	\$0 property; \$0 crops (2023 dollars)	0, 0	CAMBRIDGE SPGS	within last 5 years	B1-c worst recorded: Thunderstorm Wind
2010-06-04	Hail	4 in	\$250,000 property; \$0 crops (2010 dollars)	0, 0	NEW RICHMOND		B1-c worst recorded: Hail
2006-10-28	High Wind	60 kt (69 mph) estimated gust	\$100,000 property; \$0 crops (zone total, 2006 dollars)	0, 0	NWS zone PAZ003 (CRAWFORD), zone-level		B1-c worst recorded: High Wind and Strong Wind
2004-12-22	Winter Storm		\$1,200,000 property; crops not reported (zone total, 2004 dollars)	0, 0	NWS zone PAZ003 (CRAWFORD), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2003-07-21	Flash Flood		\$30,000,000 property; crops not reported (2003 dollars)	1, 0	COUNTYWIDE		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
1999-07-01	Heat		damage not reported	0, 0	NWS zone PAZ003 (CRAWFORD), zone-level		B1-c worst recorded: Excessive Heat, Heat
1999-06-10	Thunderstorm Wind	speed not recorded	\$10,000 property; crops not reported (1999 dollars)	1, 1	CONNEAUT LAKE		deaths or injuries recorded
1999-06-01	Drought		damage not reported	0, 0	NWS zone PAZ003 (CRAWFORD), zone-level		B1-c worst recorded: Drought
1998-06-12	Lightning		\$5,000 property; crops not reported (1998 dollars)	0, 0	MEADVILLE		B1-c worst recorded: Lightning
1997-01-10	Cold/Wind Chill		\$5,000 property; crops not reported (zone total, 1997 dollars)	0, 0	NWS zone PAZ003 (CRAWFORD), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
1985-05-31	Tornado	F4, 22.5 mi path length (whole path, pre-1996), 350 yd wide	\$25,000,000 property; crops not recorded (1985 dollars)	8, 75	location not recorded		deaths or injuries recorded
1985-05-31	Tornado	F3, 23 mi path length (whole path, pre-1996), 277 yd wide	damage not recorded (pre-1996 record)	2, 0	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,046 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
Cold Wave	3.47	event-days per year	about 3.47 days per year	Likely	Storm Events event-days in 8 of 30 years, 1996 to 2025 (26.7%)	66	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	2.5	events per year	about 2.5 per year	Highly likely	FEMA annualized frequency (modeled)	95.0 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	0.895	event-days per year	about 0.895 days per year	Possible	Storm Events event-days in 1 of 30 years, 1996 to 2025 (3.33%)	18	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.0276	events per year	about 1 in 36 years	Possible	FEMA annualized frequency (modeled)	12	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	1.14	event-days per year	about 1.14 days per year	Possible	Storm Events event-days in 1 of 30 years, 1996 to 2025 (3.33%)	77	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	2.36	event-days per year	about 2.36 days per year	Likely	Storm Events event-days in 21 of 30 years, 1996 to 2025 (70%)	66	1996 to 2023 (28 years)	see B1-f	
Landslide	0.312	events per year (modeled)	about 1 in 3 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	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
Lightning	37.8	days per year with a strike	about 37.8 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	1.75	events per year	about 1.75 per year	Highly likely	FEMA annualized frequency (modeled)	67	1986 to 2023 (38 years)	countywide	
Tornado	0.355	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	
Wildfire	0.0000551	annual probability at a location	chance a given location in the county burns in a year: 0.00551%		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	26.2	event-days per year	about 26.2 days per year	Highly likely	Storm Events event-days in 30 of 30 years, 1996 to 2025 (100%)	498	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	82	30	2.73
Hail	2.00 in+	1996 to 2025	3	30	0.1
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	318	30	10.6
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	6	30	0.2
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	55	30	1.83
Tornado	EF0-1	1996 to 2025	15	30	0.5
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	
Cold Wave	23 of 23	19.7	25.4	35.4	Relatively Low 23
Drought	0 of 23				No Rating 23
Earthquake	23 of 23	13.8	27.3	51.1	Relatively Low 1, Very Low 22
Hail	23 of 23	37.4	62.2	78.3	Relatively Moderate 5, Relatively Low 18
Heat Wave	23 of 23	2.5	5.0	10.8	Very Low 23
Hurricane	23 of 23	48.1	56.0	66.2	Relatively Low 20, Very Low 3
Ice Storm	23 of 23	13.1	54.5	65.5	Relatively Low 18, Very Low 5
Inland Flooding	23 of 23	31.4	77.3	97.3	Very High 2, Relatively High 8, Relatively Moderate 9, Relatively Low 4
Landslide	23 of 23	29.6	75.4	88.2	Relatively Low 6, Very Low 17
Lightning	23 of 23	49.0	84.2	96.2	Very High 1, Relatively High 14, Relatively Moderate 7, Relatively Low 1
Strong Wind	23 of 23	61.2	84.4	95.9	Relatively High 14, Relatively Moderate 9

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	23 of 23	31.9	47.0	63.4	Relatively Moderate 2, Relatively Low 21
Wildfire	23 of 23	35.6	62.5	73.5	Relatively Low 8, Very Low 15
Winter Weather	23 of 23	69.9	88.4	97.0	Very High 1, Relatively High 19, Relatively Moderate 3

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
Crawford County	County	Approved, expires 2030-03-03		no Public Assistance recorded	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
Blooming Valley borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$4,217.25	0 total; 0 since its plan	
Cambridge Springs borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	41 total; 1 since its plan	
Centerville borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	4 total; 0 since its plan	
Cochranon borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$4,528.94	40 total; 0 since its plan	
Conneaut Lake borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	26 total; 1 since its plan	
Conneautville borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	36 total; 2 since its plan	
Hydetown borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$119,048.71	11 total; 0 since its plan	
Linesville borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	27 total; 0 since its plan	
Meadville city	City	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 2	\$109,158.06	100 total; 0 since its plan	Includes \$14,194.20 for declarations not counted as hazard incidents (DR-4506-PA).
Saegertown borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	27 total; 1 since its plan	
Spartansburg borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$1,380	16 total; 1 since its plan	

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
Springboro borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$224,550.48	23 total; 1 since its plan	
Titusville city	City	Approved, expires 2030-03-03	FMA RL 0, SRL 2; any 14	\$62,201.85	28 total; 0 since its plan	
Townville borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	11 total; 0 since its plan	
Venango borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	12 total; 0 since its plan	
Woodcock borough	Organized Borough	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	10 total; 3 since its plan	
Athens township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$53,280.96	0 total; 0 since its plan	
Beaver township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$18,070.88	0 total; 0 since its plan	
Bloomfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$61,650.85	0 total; 0 since its plan	
Cambridge township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$6,251.21	0 total; 0 since its plan	
Conneaut township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$55,796.80	1 total; 0 since its plan	
Cussewago township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$3,930.26	0 total; 0 since its plan	
East Fairfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$29,315.66	0 total; 0 since its plan	
East Fallowfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$52,294.87	0 total; 0 since its plan	
East Mead township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$50,233.42	0 total; 0 since its plan	
Fairfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$73,165.04	0 total; 0 since its plan	
Greenwood township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$12,486.02	0 total; 0 since its plan	
Hayfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
North Shenango township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$51,345.34	0 total; 0 since its plan	
Oil Creek township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$97,472.87	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>	
Pine township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$6,873.56	0 total; 0 since its plan	
Randolph township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$25,377.75	0 total; 0 since its plan	
Richmond township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$46,121.89	0 total; 0 since its plan	
Rockdale township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$52,644.18	0 total; 0 since its plan	
Rome township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$24,942.74	0 total; 0 since its plan	
Sadsbury township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$28,344.83	0 total; 0 since its plan	
South Shenango township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Sparta township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$62,955.20	0 total; 0 since its plan	
Spring township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Steuben township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 3	\$3,776.25	0 total; 0 since its plan	
Summerhill township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$219,945.67	0 total; 0 since its plan	
Summit township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$120,397.13	0 total; 0 since its plan	
Troy township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$83,158.84	0 total; 0 since its plan	
Union township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$11,851	0 total; 0 since its plan	
Venango township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	no Public Assistance recorded	12 total; 0 since its plan	
Vernon township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 2	\$57,880.69	0 total; 0 since its plan	
Wayne township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$78,979.11	0 total; 0 since its plan	
West Fallowfield township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$760.17	0 total; 0 since its plan	
West Mead township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
West Shenango township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 0	\$8,115	0 total; 0 since its plan	
Woodcock township	Township	Approved, expires 2030-03-03	FMA RL 0, SRL 0; any 1	\$41,615.21	10 total; 3 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 2025-03-04 <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
Cold Wave	\$27,408,341,122	\$138,107,667	83,927	\$10,075	\$27,731	\$174,547	under 0.0001%				
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$49,604,198,950	n/a	83,938	\$164,658	n/a	\$45,672	0.000332%				
Hail	\$27,408,341,122	\$138,107,667	83,927	\$145,504	\$110,011	\$12,728	0.000531%	\$0			
Heat Wave	\$27,408,341,122	\$138,107,667	83,927	\$2	\$2,836	\$69,176	under 0.0001%				
Hurricane	\$27,361,707,580	\$137,995,238	83,687	\$277,066	\$48,777	\$8,131	0.00101%				
Ice Storm	\$27,395,952,693	n/a	83,889	\$42,254	n/a	\$48,794	0.000154%				

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 2025-03-04 <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	\$27,362,918,486	\$4,601,032	3,882	\$21,635,821	\$740	\$716,845	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	\$490,466,409	n/a	1,861	\$463	n/a	\$1,088	under 0.0001%				
Lightning	\$27,408,341,122	n/a	83,927	\$9,339	n/a	\$636,071	under 0.0001%				
Strong Wind	\$27,408,341,122	\$138,107,667	83,927	\$896,308	\$2,064	\$357,195	0.00327%	\$35,000			
Tornado	\$27,408,341,122	\$138,107,667	83,927	\$805,498	\$3,681	\$208,763	0.00294%	\$204,000			
Wildfire	\$6,709,573,984	\$36,590,624	21,378	\$13,630	\$16	\$1,646	0.000203%				
Winter Weather	\$27,408,341,122	\$138,107,667	83,927	\$240,663	\$108	\$43,367	0.000878%		\$0		

Totals since 2025-03-04 (Storm Events through 2026-06-30): 33 county-coded records, 33 with a damage value recorded (including \$0), \$239,000; 2 zone-level records, 2 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: no counted declaration since the plan.

FEMA does not split Public Assistance by hazard. A declaration mapped to several hazards is listed under each of them with its full amount, so the per-hazard column does not add up to the total; the unit total counts each declaration once.

NRI computes earthquake exposure on its own basis, so it exceeds the county building value in B2-a.

Supports FEMA checklist item B2-a: vulnerability (county context)

County context

Source: 5

Measure	Value
Population	83,927
Building value (total, not at risk)	\$27,408,341,122
Agriculture value (total, not at risk)	\$138,107,667
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$24,437,247
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)	\$2,324,023
Social vulnerability rating	Relatively High
Community resilience rating	Relatively Moderate
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)	2
Repetitive loss, NFIP insurance definition	29	Severe repetitive loss, NFIP insurance definition	2

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	2	29	2	29	0	5
of which: Cochranon borough	0	0	1	0	1	0	0
of which: Conneautville borough	0	0	1	0	1	0	0
of which: Meadville city	0	0	2	0	2	0	0
of which: Titusville city	0	2	14	2	14	0	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>
of which: Oil Creek township	0	0	1	0	1	0	0
of which: Steuben township	0	0	3	0	3	0	0
of which: Troy township	0	0	1	0	1	0	0
of which: Venango township	0	0	1	0	1	0	1
of which: Vernon township	0	0	2	0	2	0	0
of which: Woodcock township	0	0	1	0	1	0	0
of which: Sadsbury township	0	0	1	0	1	0	0
of which: Summit township	0	0	1	0	1	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>
Blooming Valley borough	421559	0	0	0	0	0	0	0
Cambridge Springs borough	420346	0	0	0	0	0	0	0
Centerville borough	420347	0	0	0	0	0	0	0
Cochranon borough	420348	0	0	1	0	1	0	0
Conneaut Lake borough	422386	0	0	0	0	0	0	0
Conneautville borough	420349	0	0	1	0	1	0	0
Hydetown borough	420350	0	0	0	0	0	0	0
Linesville borough	421560	0	0	0	0	0	0	0
Meadville city	420351	0	0	2	0	2	0	0
Saegertown borough	420352	0	0	0	0	0	0	0
Spartansburg borough	421561	0	0	0	0	0	0	0
Springboro borough	420353	0	0	0	0	0	0	0
Titusville city	420354	0	2	14	2	14	0	4
Townville borough	422401	0	0	0	0	0	0	0
Venango borough	420355	0	0	0	0	0	0	0
Woodcock borough	422403	0	0	0	0	0	0	0
Athens township	421562	0	0	0	0	0	0	0
Beaver township	422385	0	0	0	0	0	0	0
Bloomfield township	421563	0	0	0	0	0	0	0
Cambridge township	421564	0	0	0	0	0	0	0
Conneaut township	422387	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>
Cussewago township	422388	0	0	0	0	0	0	0
East Fairfield township	421565	0	0	0	0	0	0	0
East Fallowfield township	422389	0	0	0	0	0	0	0
East Mead township	421566	0	0	0	0	0	0	0
Fairfield township	421567	0	0	0	0	0	0	0
Greenwood township	422390	0	0	0	0	0	0	0
Hayfield township	421227	0	0	0	0	0	0	0
North Shenango township	423636	0	0	0	0	0	0	0
Oil Creek township	421568	0	0	1	0	1	0	0
Pine township	422392	0	0	0	0	0	0	0
Randolph township	422393	0	0	0	0	0	0	0
Richmond township	421569	0	0	0	0	0	0	0
Rockdale township	422394	0	0	0	0	0	0	0
Rome township	422395	0	0	0	0	0	0	0
Sadsbury township	422396	0	0	1	0	1	0	0
South Shenango township	422397	0	0	0	0	0	0	0
Sparta township	422398	0	0	0	0	0	0	0
Spring township	421570	0	0	0	0	0	0	0
Steuben township	421571	0	0	3	0	3	0	0
Summerhill township	422399	0	0	0	0	0	0	0
Summit township	422400	0	0	1	0	1	0	0
Troy township	421572	0	0	1	0	1	0	0
Union township	421573	0	0	0	0	0	0	0
Venango township	421574	0	0	1	0	1	0	1
Vernon township	421575	0	0	2	0	2	0	0
Wayne township	421576	0	0	0	0	0	0	0
West Fallowfield township	422651	0	0	0	0	0	0	0
West Mead township	420356	0	0	0	0	0	0	0
West Shenango township	422402	0	0	0	0	0	0	0
Woodcock township	421578	0	0	1	0	1	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	2	23	2	23	0	5
2 to 4 unit residential	0	0	2	0	2	0	0
other residential	0	0	0	0	0	0	0
non-residential	0	0	4	0	4	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

Reuse and citation: Hazard Plain text and tables are licensed under Creative Commons Attribution 4.0 International (CC BY 4.0, <https://creativecommons.org/licenses/by/4.0/>); credit Hazard Plain and the release. The underlying federal data are public domain; OpenFEMA data are also subject to the OpenFEMA terms and conditions.

Cite this: Hazard Plain (2026). Crawford County, PA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 42039). Automated baseline. <https://hazardplain.org/pa/42039/> 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