

Montgomery County, OH

Risk-assessment baseline packet

County FIPS: 39113 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 2030-02-04. Plan: Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), approved 2025-02-05. Since the plan was approved on 2025-02-05: no new hazard declaration and 67 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 (\$79,592,789 a year), Cold Wave (\$10,898,733) and Tornado (\$8,572,695). 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; 39113 is this area.
D0 to D4: U.S. Drought Monitor categories, from abnormally dry (D0) to exceptional drought (D4).
F/EF, EFU: Fujita and Enhanced Fujita tornado ratings; EFU is an unrated tornado.
kt, CONUS: knots (1 kt is about 1.15 mph); the contiguous United States.
CFR: Code of Federal Regulations.
A4-a, E1-a: other items of FEMA's Local Mitigation Plan Review Tool (sources, and changes since the last plan).
Dollars: nominal (as reported, labeled with the year), not adjusted for inflation.

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Plan clock

Status:	Approved, expires 2030-02-04	Plan:	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)
Approved:	2025-02-05	Days to expiry:	1,223
What changed since your last plan (approved 2025-02-05)			
New federal declarations:	none	Storm Events records since approval:	67 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 4, SRL 3 (44 CFR 77.2); any definition: 20	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: 31 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
Montgomery County	County	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		
Brookville city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Carlisle village	Village	Approved, expires 2030-11-16	Warren County 2025 Hazard Mitigation Plan (FEMA plan 111229)	2025-11-17	2030-11-16	1,508		this jurisdiction approved 2025-12-10
Centerville city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Clayton city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		
Dayton city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-12-10
Englewood city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		
Farmersville village	Village	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Germantown city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Huber Heights city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-06-25
Kettering city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-06-25
Miamisburg city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		
Moraine city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
New Lebanon village	Village	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-06-25

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Oakwood city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		Also approved under plan 108517 (Cuyahoga County 2022 Hazard Mitigation Plan, expires 2027-09-15). FEMA's plan status map shows one plan per jurisdiction and may show one of these; this packet uses the approved plan that expires last.
Phillipsburg village	Village	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-12-10
Riverside city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Trotwood city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Union city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		
Vandalia city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
West Carrollton city	City	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Butler township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Clay township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
German township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Harrison township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Jackson township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Jefferson township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Miami township	Township	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-12-10
Perry township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353), pending adoption here	2025-02-05 by FEMA; not yet adopted here	2030-02-04 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Washington township	Township	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2025-04-14
Miami Conservancy Dist	Conservation District	Approved, expires 2030-02-04	Montgomery County 2025 Hazard Mitigation Plan (FEMA plan 110353)	2025-02-05	2030-02-04	1,223		this jurisdiction approved 2026-01-20

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 High	Relatively High	\$78,881,183	\$91,611	\$619,994	\$79,592,789	126	
2	Cold Wave	Relatively High	Relatively High	\$14,370	\$74,471	\$10,809,892	\$10,898,733	4	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).
3	Tornado	Relatively High	Relatively High	\$3,536,197	\$900	\$5,035,598	\$8,572,695	15	
4	Earthquake	Relatively Moderate	Relatively Moderate	\$4,142,836	n/a	\$1,858,187	\$6,001,023		Storm Events does not record earthquakes.
5	Strong Wind	Relatively High	Relatively High	\$2,637,981	\$1,094	\$1,676,256	\$4,315,331	402	Includes 21 High Wind and 3 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
6	Hail	Relatively High	Relatively High	\$3,090,651	\$13,294	\$97,857	\$3,201,803	173	
7	Heat Wave	Relatively Moderate	Relatively Moderate	\$43,624	\$2	\$2,579,501	\$2,623,126	8	
8	Ice Storm	Very High	Very High	\$1,654,556	n/a	\$205,746	\$1,860,301	5	
9	Lightning	Relatively High	Relatively High	\$86,017	n/a	\$1,408,781	\$1,494,798	3	
10	Winter Weather	Relatively High	Relatively High	\$194,167	\$376	\$285,882	\$480,426	157	
11	Hurricane	Very Low	Very Low	\$62,845	\$2,520	\$633	\$65,999	0	Declared 1 time; no Storm Events record of this type.
12	Wildfire	Very Low	Very Low	\$28,622	\$7	\$3,059	\$31,688	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	Drought	Very Low	Very Low	n/a	\$15,728	n/a	\$15,728	2	
14	Landslide	Relatively Low	Very Low	\$1,873	n/a	\$2,105	\$3,978	0	Declared 2 times; no Storm Events record of this type.

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 15.01 (Relatively Moderate, 85.7); tract 807 (Relatively Low, 76.7); tract 35 (Relatively Low, 76.2)
Hurricane	tract 15.01 (Very Low, 39.6); tract 404.01 (Very Low, 37.1); tract 1501 (Very Low, 36.5)
Landslide	tract 1601 (Relatively Low, 90.9); tract 506 (Relatively Low, 90.0); tract 505.02 (Relatively Low, 86.3)
Tornado	tract 15.01 (Relatively Moderate, 67.6); tract 404.01 (Relatively Moderate, 66.9); tract 204 (Relatively Moderate, 65.0)
Wildfire	tract 506 (Relatively Low, 71.2); tract 1004 (Very Low, 67.8); tract 1101 (Very Low, 67.7)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 15.01 is Census Tract 15.01). 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	3 records, 1996 to 2022 (3 zone-level)	1 day to 5 days (median 3 days); 3 with a recorded value	5 consecutive days, 1996-02-01 to 1996-02-05, zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	1 record, 2007 (1 zone-level)		Frost/Freeze, 2007-04-06, \$540,000 crop damage (2007 dollars); NWS zone OHZ061		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	2 records, 1999 (2 zone-level)	62 days; 1 with a recorded value	62 days (2 months), 1999-07-01 to 1999-08-31, a run of 2 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)	207 records, 1956 to 2025	0.75 in to 3 in (median 0.88 in); 206 with a recorded value	3 in hail, 2011-05-25	Hail, 2001-04-09, \$70,000,000 property; crops not reported (2001 dollars)	Event records naming jurisdictions in the plan: Vandalia city (16 records), Dayton city (15 records), Huber Heights city (13 records), Centerville city (11 records), Miamisburg city (11 records), Englewood city (9 records), Kettering city (9 records), Brookville city (8 records), Germantown city (8 records), New Lebanon village (8 records); and 9 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	8 records, 1999 to 2019 (8 zone-level)	2 days to 12 days (median 5 days); 5 with a recorded value	12 consecutive days, 1999-07-20 to 1999-07-31, 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)	5 records, 1996 to 2018 (5 zone-level)		No damage reported in 5 records.		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)	126 records, 1996 to 2026 (23 zone-level)		Flash Flood, 2014-06-20, \$200,000 property; \$0 crops (2014 dollars)		Event records naming jurisdictions in the plan: Dayton city (15 records), Moraine city (6 records), Huber Heights city (4 records), Miamisburg city (4 records), Brookville city (3 records), Centerville city (3 records), Kettering city (3 records), Oakwood city (3 records), Clayton city (2 records), Englewood city (2 records); and 7 more jurisdictions (see the Excel file). Zone-level records (23) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	3 records, 2001 to 2015		Lightning, 2001-06-12, \$100,000 property; crops not reported (2001 dollars)		Event records naming jurisdictions in the plan: Dayton city (2 records), Kettering 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)	24 records, 1996 to 2026 (24 zone-level)	35 kt (40 mph) to 67 kt (77 mph) (median 52.5 kt (60 mph)); 24 with a recorded value	67 kt (77 mph) measured gust, High Wind, 2026-03-13; NWS zone OHZ061	High Wind, 2008-09-14, \$63,700,000 property; crops not reported (zone total, 2008 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	476 records, 1956 to 2026	40 kt (46 mph) to 76 kt (87 mph) (median 50 kt (58 mph)); 402 with a recorded value	76 kt (87 mph), measurement type not recorded, Thunderstorm Wind, 1997-03-28	Thunderstorm Wind, 1996-04-29, \$300,000 property; crops not reported (1996 dollars)	Event records naming jurisdictions in the plan: Dayton city (41 records), Germantown city (20 records), Vandalia city (18 records), Centerville city (17 records), Miamisburg city (17 records), Englewood city (16 records), Kettering city (15 records), Trotwood city (11 records), Brookville city (9 records), Huber Heights city (9 records); and 10 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	22 records, 1960 to 2025	F/EF0 to F/EF4 (median F/EF1); 22 with a recorded value	EF4 tornado, 2019-05-27, 18.17 mi within this county, 1,050 yd wide, \$500,000,000 property; \$0 crops (2019 dollars), 166 direct injuries		Event records naming jurisdictions in the plan: Phillipsburg village (2 records), Centerville city (1 record), Miamisburg city (1 record), Vandalia city (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	157 records, 1996 to 2026 (157 zone- level)		Winter Storm, 1996-01-06, \$500,000 property; crops not reported (1996 dollars), 1 direct death (reported for the zone); NWS zone OHZ061		Countywide (zone-level records).	

Where a hazard names more than 10 jurisdictions, the table lists the 10 with the most records; every one is in the Excel file, sheet "B1-c Extent".

In event narratives only (local data needed): wind chill, temperature, heat index, ice thickness, acres burned and snow depth; any physical measure of debris flow and lightning.

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

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 13 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).

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
2020-03-31	2020-01-20	DR-4507-OH	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$116,565,284.45	
2020-03-13	2020-01-20	EM-3457-OH	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	same incident as DR-4507
2019-06-18	2019-05-27	DR-4447-OH	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, Flooding, Landslides, and Mudslide	Tornado (primary); also designated: Inland Flooding, Landslide, Strong Wind	\$7,009,454.55	
2012-06-30	2012-06-29	EM-3346-OH	Emergency	Severe Storms	Hazard not mapped (severe storm title names no single hazard); not counted	no Public Assistance recorded	
2008-10-24	2008-09-14	DR-1805-OH	Major disaster	Severe Wind Storm Associated with Tropical Depression Ike	Hurricane; Strong Wind	\$6,369,982.32	
2005-09-13	2005-08-29	EM-3250-OH	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	\$6,720	
2005-02-15	2004-12-22	DR-1580-OH	Major disaster	Severe Winter Storms, Flooding, and Mudslides	Inland Flooding; Landslide; Winter Weather	\$1,048,955.98	
2005-01-11	2004-12-22	EM-3198-OH	Emergency	Snow	Winter Weather	\$1,200,029.20	same incident as DR-1580

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Notes
						<i>federal share obligated, nominal dollars</i>	
2004-09-19	2004-08-27	DR-1556-OH	Major disaster	Severe Storms and Flooding	Inland Flooding: designated for Hazard Mitigation only (no Public or Individual Assistance for this county); not counted	\$2,147.25	FEMA's declaration record does not list Public Assistance, but FEMA's PA project summaries show obligations for this county
2003-03-14	2003-02-14	DR-1453-OH	Major disaster	Severe Winter Storm and Record/Near Record Snow	Winter Weather	\$833,364.06	
1989-06-10	1989-05-23	DR-831-OH	Major disaster	Severe Storms & Flooding	Inland Flooding	PA not declared for this county	
1978-01-26	1978-01-26	EM-3055-OH	Emergency	Blizzards & Snowstorms	Winter Weather	no Public Assistance recorded	
1968-06-05	1968-06-05	DR-243-OH	Major disaster	Heavy Rains & Flooding	Inland Flooding	no Public Assistance recorded	

County Public Assistance: applicants the FEMA record places in this county, including any state agencies FEMA files there; statewide rows are listed on the state page; federal share obligated, nominal dollars.

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1964-03-24	1964-03-24	DR-167-OH	Major disaster	Severe Storms & Flooding	Inland Flooding
1959-01-23	1959-01-23	DR-90-OH	Major disaster	Floods	Inland Flooding
1956-05-17	1956-05-17	DR-57-OH	Major disaster	Wind Storm	Other, not an NRI hazard; not counted

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.

Public Assistance filed under this county for declarations that do not list it: 1 row, \$31,161.14

Sources: 2, 3

FEMA number	Declared	Title	Applicant	PA obligated
				<i>federal share obligated, nominal dollars</i>
DR-1343-OH	2000-09-26	Severe Storms and Tornado	Miami Valley Fire & Emergency Medical Services Alliance	\$31,161.14

FEMA's Public Assistance summaries file these applicants under this county, but FEMA's declaration rows for these disasters do not designate it (an electric cooperative or district serving several counties, for example). Not in any declaration row above and not counted.

Public Assistance not placed in any Ohio county: 1 row, \$3,080,910.74; listed on the Ohio state page.

Source: 3

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <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	4	0	0	1	0	0	1996 to 2026-06-30	Includes 1 Frost/Freeze record.
Drought	2	0	0	0	0	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	207	5	1	11	0	0	1955 to 2026-06-30	
Heat Wave	8	0	0	0	0	0	1996 to 2026-06-30	
Hurricane	0	0	0	0	1	0	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Ice Storm	5	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	126	16	0	18	4	0	1996 to 2026-06-30	
Landslide	0	0	0	0	2	0	1996 to 2026-06-30	No Storm Events records of this type; 2 federal declared incidents (see declarations table)
Lightning	3	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	500	36	13	76	2	0	1955 to 2026-06-30	Includes 21 High Wind and 3 Strong Wind records.
Tornado	22	1	1	2	1	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	157	9	5	23	3	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2026-03-13	High Wind	67 kt (77 mph) measured gust	damage not reported	0, 0	NWS zone OHZ061 (MONTGOMERY), zone-level	new since last plan; within last 5 years	B1-c worst recorded: High Wind and Strong Wind
2020-11-15	High Wind	57 kt (66 mph) measured gust	\$50,000 property; crops not reported (zone total, 2020 dollars)	1, 0	NWS zone OHZ061 (MONTGOMERY), zone-level		deaths or injuries recorded
2019-05-27	Tornado	EF4, 18.17 mi within this county, 1,050 yd wide	\$500,000,000 property; \$0 crops (2019 dollars)	0, 166	PYRMONT to EASTVIEW		B1-c worst recorded: Tornado
2014-06-20	Flash Flood		\$200,000 property; \$0 crops (2014 dollars)	0, 0	SINGING HILLS		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2011-05-25	Hail	3 in	\$10,000 property; \$0 crops (2011 dollars)	0, 2	MIAMISBURG		B1-c worst recorded: Hail
2007-04-06	Frost/Freeze		\$0 property; \$540,000 crops (zone total, 2007 dollars)	0, 0	NWS zone OHZ061 (MONTGOMERY), zone-level		B1-c worst recorded: Frost/Freeze
2001-06-12	Lightning		\$100,000 property; crops not reported (2001 dollars)	0, 0	DAYTON		B1-c worst recorded: Lightning
1999-07-20	Heat		damage not reported	0, 0	NWS zone OHZ061 (MONTGOMERY), zone-level		B1-c worst recorded: Excessive Heat, Heat
1997-03-28	Thunderstorm Wind	76 kt (87 mph), measurement type not recorded	damage not reported	0, 0	BROOKVILLE		B1-c worst recorded: Thunderstorm Wind
1996-04-29	Thunderstorm Wind	speed not recorded	\$300,000 property; crops not reported (1996 dollars)	1, 0	COUNTYWIDE		deaths or injuries recorded
1996-02-01	Cold/Wind Chill		\$100,000 property; crops not reported (zone total, 1996 dollars)	0, 0	NWS zone OHZ061 (MONTGOMERY), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
1996-01-06	Winter Storm		\$500,000 property; crops not reported (zone total, 1996 dollars)	1, 0	NWS zone OHZ061 (MONTGOMERY), zone-level		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,034 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	4.16	event-days per year	about 4.16 days per year	Likely	Storm Events event- days in 3 of 30 years, 1996 to 2025 (10%)	79	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0.353	event-days per year	about 0.353 days per year	Possible	Storm Events event- days in 1 of 30 years, 1996 to 2025 (3.33%)	28	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.00161	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.161%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	3.51	events per year	about 3.51 per year	Highly likely	FEMA annualized frequency (modeled)	133.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	5.05	event-days per year	about 5.05 days per year	Likely	Storm Events event- days in 4 of 30 years, 1996 to 2025 (13.3%)	56	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.00575	events per year	about 1 in 174 years	Unlikely	FEMA annualized frequency (modeled)	2	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	1.15	event-days per year	about 1.15 days per year	Likely	Storm Events event- days in 5 of 30 years, 1996 to 2025 (16.7%)	78	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	2.39	event-days per year	about 2.39 days per year	Likely	Storm Events event- days in 25 of 30 years, 1996 to 2025 (83.3%)	67	1996 to 2023 (28 years)	see B1-f	
Landslide	0.118	events per year (modeled)	about 1 in 8 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	46.9	days per year with a strike	about 46.9 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	2.42	events per year	about 2.42 per year	Highly likely	FEMA annualized frequency (modeled)	92	1986 to 2023 (38 years)	countywide	

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
Tornado	0.313	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	0.0000221	annual probability at a location	chance a given location in the county burns in a year: 0.00221%		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	11.3	event-days per year	about 11.3 days per year	Likely	Storm Events event-days in 26 of 30 years, 1996 to 2025 (86.7%)	214	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	73	30	2.43
Hail	2.00 in+	1996 to 2025	5	30	0.167
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	330	30	11
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	4	30	0.133
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	12	30	0.4
Tornado	EF2-3	1996 to 2025	2	30	0.0667
Tornado	EF4-5	1996 to 2025	1	30	0.0333
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	156 of 156	15.6	57.1	80.9	Relatively High 2, Relatively Moderate 114, Relatively Low 39, Very Low 1
Drought	46 of 156	66.8	72.5	84.8	Relatively Low 4, Very Low 42, No Rating 110
Earthquake	156 of 156	6.0	48.2	85.7	Relatively Moderate 1, Relatively Low 103, Very Low 52
Hail	156 of 156	24.0	66.4	90.4	Relatively High 1, Relatively Moderate 57, Relatively Low 97, Very Low 1
Heat Wave	156 of 156	1.6	23.0	54.5	Relatively Low 104, Very Low 52
Hurricane	156 of 156	14.3	27.2	39.6	Very Low 156
Ice Storm	156 of 156	7.5	70.1	93.9	Relatively High 3, Relatively Moderate 79, Relatively Low 72, Very Low 2
Inland Flooding	156 of 156	0.6	30.7	98.7	Very High 2, Relatively High 13, Relatively Moderate 34, Relatively Low 59, Very Low 48
Landslide	155 of 156	10.7	50.3	90.9	Relatively Low 7, Very Low 148, No Rating 1
Lightning	156 of 156	0.4	43.2	75.0	Relatively Moderate 57, Relatively Low 95, Very Low 4
Strong Wind	156 of 156	10.0	60.4	90.7	Relatively High 10, Relatively Moderate 97, Relatively Low 48, Very Low 1

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	156 of 156	3.6	44.8	67.6	Relatively Moderate 35, Relatively Low 119, Very Low 2
Wildfire	151 of 156	18.6	41.1	71.2	Relatively Low 1, Very Low 150, No Rating 5
Winter Weather	156 of 156	15.9	51.3	78.6	Relatively Moderate 99, Relatively Low 56, Very Low 1

Drought: Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range mostly reflects where crop and livestock value is.

Rated tracts only: No Rating (score 0.0), Not Applicable and Insufficient Data tracts are counted but not used for the minimum, median and maximum.

The score ranks a tract against all U.S. tracts (100 = highest). The rating is FEMA's category for the tract's risk value, computed differently, so the two can disagree.

Frequency data for cold wave, drought, hail, heat wave, ice storm, lightning, strong wind and winter weather are county-wide or coarse (49 km grid or NWS zone), the same for every jurisdiction; the tract range mostly reflects where buildings and people are (crop and livestock value where a line above names agriculture).

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
Montgomery County	County	Approved, expires 2030-02-04	FMA RL 3, SRL 1; any 11	\$2,175,255.68	0 total; 0 since its plan	Includes \$1,089,244.67 for declarations not counted as hazard incidents (DR-4507-OH).
Brookville city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 1	\$320,258.55	20 total; 0 since its plan	
Carlisle village	Village	Approved, expires 2030-11-16	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 0 since its plan	
Centerville city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$358,549.07	32 total; 4 since its plan	
Clayton city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 1; any 1	\$323,627.53	9 total; 1 since its plan	
Dayton city	City	Approved, expires 2030-02-04	FMA RL 1, SRL 1; any 3	\$4,764,401.69	73 total; 3 since its plan	
Englewood city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$96,315.78	27 total; 1 since its plan	
Farmersville village	Village	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$31,687.41	7 total; 0 since its plan	
Germantown city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$37,986.24	30 total; 3 since its plan	
Huber Heights city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 1	\$268,889.72	26 total; 1 since its plan	
Kettering city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 2	\$1,233,169.88	28 total; 0 since its plan	Includes \$106,067.07 for declarations not counted as hazard incidents (DR-4507-OH).
Miamisburg city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$444,092.12	33 total; 4 since its plan	Includes \$53,364.63 for declarations not counted as hazard incidents (DR-4507-OH).

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>	
Moraine city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$370,233.32	17 total; 1 since its plan	
New Lebanon village	Village	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$14,171.28	14 total; 1 since its plan	
Oakwood city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$351,446.67	13 total; 1 since its plan	Also approved under plan 108517 (Cuyahoga County 2022 Hazard Mitigation Plan, expires 2027-09-15). FEMA's plan status map shows one plan per jurisdiction and may show one of these; this packet uses the approved plan that expires last.
Phillipsburg village	Village	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$6,459.64	3 total; 0 since its plan	
Riverside city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$168,359.16	10 total; 0 since its plan	
Trotwood city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 1	\$998,012.15	17 total; 1 since its plan	
Union city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$111,828.41	11 total; 2 since its plan	
Vandalia city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$231,370.86	35 total; 0 since its plan	
West Carrollton city	City	Approved, expires 2030-02-04	FMA RL 0, SRL 0; any 0	\$187,039.35	10 total; 0 since its plan	Includes \$27,727.70 for declarations not counted as hazard incidents (DR-4507-OH).
Butler township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$243,116.61	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Clay township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$12,026.65	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
German township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$27,423.62	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Harrison township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$2,133,085.41	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Jackson township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$55,781.11	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place	Notes
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	<i>all years; since its plan</i>	
Jefferson township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$8,086.50	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Miami township	Township	Approved, expires 2030-02-04		\$179,291.19	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
Perry township	Township	Plan 110353 approved 2025-02-05, pending adoption here; not yet eligible		\$11,428.38	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Washington township	Township	Approved, expires 2030-02-04		\$758,186.13	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row. Includes \$128,095.15 for declarations not counted as hazard incidents (DR-4507-OH).

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

School districts and special districts get a plan clock row only.

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

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

Local data needed

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

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

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

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

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <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 2025-02-05 <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	\$111,640,246,168	\$101,326,499	537,192	\$14,370	\$74,471	\$10,809,892	under 0.0001%				
Drought	n/a	\$15,347,440	n/a	n/a	\$15,728	n/a	0.102% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$196,350,056,094	n/a	537,309	\$4,142,836	n/a	\$1,858,187	0.00211%				
Hail	\$111,640,358,401	\$101,326,499	537,193	\$3,090,651	\$13,294	\$97,857	0.00277%	\$0			
Heat Wave	\$111,640,246,168	\$101,326,499	537,192	\$43,624	\$2	\$2,579,501	under 0.0001%				
Hurricane	\$111,379,003,150	\$97,813,104	535,500	\$62,845	\$2,520	\$633	under 0.0001%				
Ice Storm	\$111,640,165,799	n/a	537,191	\$1,654,556	n/a	\$205,746	0.00148%				
Inland Flooding	\$111,486,573,632	\$4,518,214	8,224	\$78,881,183	\$91,611	\$619,994	n/a (see note)	\$48,000			NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b.
Landslide	\$1,006,507,767	n/a	4,191	\$1,873	n/a	\$2,105	0.000186%				
Lightning	\$111,640,358,401	n/a	537,193	\$86,017	n/a	\$1,408,781	under 0.0001%				
Strong Wind	\$111,640,358,401	\$101,326,499	537,193	\$2,637,981	\$1,094	\$1,676,256	0.00236%	\$83,500			
Tornado	\$111,640,358,401	\$101,326,499	537,193	\$3,536,197	\$900	\$5,035,598	0.00317%	\$20,000			

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 2025-02-05 <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
Wildfire	\$24,639,063,998	\$32,075,628	112,039	\$28,622	\$7	\$3,059	0.000116%				
Winter Weather	\$111,640,246,168	\$101,326,499	537,192	\$194,167	\$376	\$285,882	0.000174%				

Totals since 2025-02-05 (Storm Events through 2026-06-30): 54 county-coded records, 54 with a damage value recorded (including \$0), \$151,500; 13 zone-level records, 0 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	537,193
Building value (total, not at risk)	\$111,640,358,401
Agriculture value (total, not at risk)	\$101,326,499
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$94,574,925
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)	\$24,583,491
Social vulnerability rating	Relatively Moderate
Community resilience rating	Relatively High
NRI version	December 2025

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

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

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	4	Severe repetitive loss, FMA definition (44 CFR 77.2)	3
Repetitive loss, NFIP insurance definition	19	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	4	3	19	2	20	1	2
of which: Brookville city	0	0	1	0	1	0	1
of which: Dayton city	1	1	3	1	3	0	0
of which: Kettering city	0	0	2	0	2	0	0
of which: Trotwood city	0	0	1	0	1	0	0
of which: Montgomery County (unincorporated area)	3	1	10	0	11	1	1
of which: Clayton city	0	1	1	1	1	0	0
of which: Huber Heights city	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>
Montgomery County	390775	3	1	10	0	11	1	1
Brookville city	390407	0	0	1	0	1	0	1
Carlisle village	390606	0	0	0	0	0	0	0
Centerville city	390408	0	0	0	0	0	0	0
Clayton city	390821	0	1	1	1	1	0	0
Dayton city	390409	1	1	3	1	3	0	0
Englewood city	390828	0	0	0	0	0	0	0
Farmersville village	395436	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>
Germantown city	390411	0	0	0	0	0	0	0
Huber Heights city	390884	0	0	1	0	1	0	0
Kettering city	390412	0	0	2	0	2	0	0
Miamisburg city	390413	0	0	0	0	0	0	0
Moraine city	390414	0	0	0	0	0	0	0
New Lebanon village	395435	0	0	0	0	0	0	0
Oakwood city	390415	0	0	0	0	0	0	0
Phillipsburg village	395434	0	0	0	0	0	0	0
Riverside city	390416	0	0	0	0	0	0	0
Trotwood city	390417	0	0	1	0	1	0	0
Union city	390704	0	0	0	0	0	0	0
Vandalia city	390418	0	0	0	0	0	0	0
West Carrollton city	390419	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	4	3	19	2	20	1	2
2 to 4 unit residential	0	0	0	0	0	0	0
other residential	0	0	0	0	0	0	0
non-residential	0	0	0	0	0	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 1 property is FMA repetitive loss but not NFIP repetitive loss, and 16 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

Tables cite these sources by number. The full list, for the plan's bibliography (FEMA review item A4-a):

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 2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
 3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
 4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
 5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
 6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
 7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
 8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_scscd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scscd_national.zip), https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)
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What this packet is and what the plan adds

This packet is the federal data for the plan's risk assessment (the summary on page 1 says how it is organized); the plan and FEMA's review decide whether each item is met.

The plan adds what only the community has: local data on assets, critical facilities, development and each jurisdiction's impacts; local hazard history, including state-declared emergencies; the mitigation strategy; and adoption.

How the federal data are built: National Risk Index values are FEMA's model, not counts of events. Storm Events is more complete from 1996; zone-level records are placed by forecast zone, not by location in the county. Public Assistance for a jurisdiction is matched by applicant name. The Methods page gives every rule and the known edge cases.

OpenFEMA disclaimer

This product uses the Federal Emergency Management Agency's OpenFEMA API, but is not endorsed by FEMA. The Federal Government or FEMA cannot vouch for the data or analyses derived from these data after the data have been retrieved from the Agency's website(s).

Reuse, citation and corrections

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Cite this: Hazard Plain (2026). Montgomery County, OH: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 39113). Automated baseline. <https://hazardplain.org/oh/39113/> 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