

Polk County, IA

Risk-assessment baseline packet

County FIPS: 19153 **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 2029-10-29. Plan: Polk County (FEMA plan 110028), approved 2024-10-30.

Since the plan was approved on 2024-10-30: 1 new hazard declaration (1 incident) and 40 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 (\$60,590,287 a year), Tornado (\$30,948,070) and Strong Wind (\$11,491,943).

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; 19153 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 2029-10-29	Plan:	Polk County (FEMA plan 110028)
Approved:	2024-10-30	Days to expiry:	1,125
What changed since your last plan (approved 2024-10-30)			
New federal declarations:	1 new hazard declaration (1 incident): DR-4942-IA (Severe Storms and Flooding)	Storm Events records since approval:	40 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 4, SRL 10 (44 CFR 77.2); any definition: 67	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: 34 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
Polk County	County	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2024-12-03
Alleman city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-03-13
Altoona city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-01-24
Ankeny city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Bondurant city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-24
Carlisle city	City	Approved, expires 2027-12-21	Warren County (FEMA plan 108645)	2022-12-22	2027-12-21	447		this jurisdiction approved 2023-12-19
Clive city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		
Des Moines city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-26
Elkhart city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Grimes city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-24
Johnston city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-01-24
Mitchellville city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-01-24

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Pleasant Hill city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Polk City city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-01-21
Runnells city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-03-13
Saylorville CDP	Township	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Sheldahl city	City	Approved, expires 2030-01-07	Story County Multi-Jurisdictional Hazard Mitigation Plan (FEMA plan 110405)	2025-01-08	2030-01-07	1,195		this jurisdiction approved 2025-04-07
Urbandale city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2026-05-15
West Des Moines city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-03-13
Windsor Heights city	City	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-13
Ankeny Community School District	School/School District	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Bondurant-Farrar Community School District	School/School District	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Dallas Center-Grimes Community School District	School/School District	Approved, expires 2028-01-26	Dallas County (FEMA plan 108726)	2023-01-27	2028-01-26	483	FEMA tracker shows a plan approvable pending adoption	this jurisdiction approved 2023-02-27
Des Moines Independent Community School District	School/School District	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 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 <i>negative = days since expiry</i>	Update underway	Notes
Johnston Community School District	School/School District	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Madrid Community School District	School/School District	Expired on 2026-09-09	Boone County HM Plan Update (FEMA plan 107653)	2021-09-09	2026-09-09	-21		
North Polk Community School District	School/School District	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
PCM Community School District	School/School District	Approved, expires 2028-03-07	Jasper County (FEMA plan 108800)	2023-03-08	2028-03-07	524		this jurisdiction approved 2023-03-06
Southeast Polk Community School District	School/School District	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-03-10
Urbandale Community School District	School/School District	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-13
West Des Moines Community School District	School/School District	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-03-13
Woodward-Granger Community School District	School/School District	Approved, expires 2028-01-26	Dallas County (FEMA plan 108726)	2023-01-27	2028-01-26	483		this jurisdiction approved 2023-02-27
Deleware Township	Township	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	Polk County (FEMA plan 110028), pending adoption here	2024-10-30 by FEMA; not yet adopted here	2029-10-29 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Des Moines Water Works	Water/Sewer Authority	Approved, expires 2029-10-29	Polk County (FEMA plan 110028)	2024-10-30	2029-10-29	1,125		this jurisdiction approved 2025-02-13

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 High	\$58,745,003	\$1,046,826	\$798,457	\$60,590,287	295	
2	Tornado	Relatively High	Relatively High	\$17,608,077	\$6,890	\$13,333,103	\$30,948,070	36	
3	Strong Wind	Very High	Very High	\$7,538,045	\$104,554	\$3,849,344	\$11,491,943	658	Includes 38 High Wind records (a NOAA non-thunderstorm wind type, outside NRI's Strong Wind definition).
4	Heat Wave	Relatively High	Relatively High	\$7,098	\$3	\$10,703,503	\$10,710,603	6	
5	Cold Wave	Relatively High	Relatively High	\$36,418	\$370,654	\$9,362,918	\$9,769,989	28	Includes 9 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
6	Hail	Relatively High	Relatively High	\$1,754,918	\$83,374	\$5,553,241	\$7,391,533	583	
7	Drought	Relatively High	Relatively High	n/a	\$3,074,289	n/a	\$3,074,289	32	
8	Ice Storm	Relatively High	Relatively High	\$1,198,531	n/a	\$160,658	\$1,359,189	11	
9	Earthquake	Relatively Low	Relatively Low	\$572,541	n/a	\$247,340	\$819,880		Storm Events does not record earthquakes.
10	Lightning	Relatively Moderate	Relatively Moderate	\$120,762	n/a	\$694,871	\$815,634	42	
11	Winter Weather	Relatively High	Relatively High	\$175,380	\$194	\$330,456	\$506,030	76	
12	Wildfire	Very Low	Relatively Low	\$77,413	\$57	\$13,281	\$90,751	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	Hurricane	Very Low	Very Low	\$13,070	\$1,219	under \$1	\$14,289	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Landslide	Relatively Low	Very Low	\$2,365	n/a	\$3,774	\$6,139	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

Local data needed: state and local wildfire 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, tsunامي 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 51.01 (Relatively Low, 73.6); tract 49 (Relatively Low, 67.6); tract 105 (Relatively Low, 44.1)
Hurricane	tract 51.01 (Very Low, 30.5); tract 105 (Very Low, 28.8); tract 101.01 (Very Low, 28.4)
Landslide	tract 107.02 (Relatively Low, 90.4); tract 115 (Relatively Low, 90.0); tract 101.01 (Relatively Low, 89.2)
Tornado	tract 51.01 (Very High, 99.3); tract 105 (Very High, 98.3); tract 3 (Very High, 97.0)
Wildfire	tract 107.02 (Relatively Low, 85.6); tract 108.04 (Relatively Low, 84.4); tract 115 (Relatively Low, 76.1)

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 51.01 is Census Tract 51.01). 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	19 records, 1996 to 2025 (19 zone-level)	1 day to 4 days (median 2 days); 16 with a recorded value	4 consecutive days, 2024-01-13 to 2024-01-16, zone-level	Cold/Wind Chill, 1999-09-21, property not reported; \$294,117.65 crops (zone total, 1999 dollars)	Countywide (zone-level records).	Cold/Wind Chill records from May to September (a frost night, not a cold wave) are counted but not used for the longest run.
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	9 records, 1996 to 2019 (9 zone-level)		Frost/Freeze, 2009-10-10, \$2,500,000 crop damage (2009 dollars); NWS zone IAZ060		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	32 records, 1999 to 2024 (32 zone-level)	11 days to 253 days (median 36 days); 11 with a recorded value	253 days (about 8.3 months), 2023-09-05 to 2024-05-14, a run of 9 consecutive Storm Events drought records, zone-level	Drought, 2012-07-01, \$0 property; \$45,000,000 crops (zone total, 2012 dollars)	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)	670 records, 1956 to 2025	0.52 in to 3.25 in (median 1 in); 669 with a recorded value	3.25 in hail, 2021-07-09	Hail, 2001-06-12, \$9,500,000 property; \$10,000 crops (2001 dollars)	Event records naming jurisdictions in the plan: Des Moines city (97 records), Ankeny city (48 records), West Des Moines city (34 records), Urbandale city (32 records), Grimes city (27 records), Windsor Heights city (27 records), Johnston city (26 records), Altoona city (18 records), Polk City city (18 records), Clive city (14 records); and 7 more jurisdictions (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	6 records, 2001 to 2019 (6 zone-level)	1 day to 14 days (median 2 days); 6 with a recorded value	14 consecutive days, 2011-07-15 to 2011-07-28, 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)	11 records, 1996 to 2017 (11 zone-level)		Ice Storm, 2010-01-20, \$300,000 property; \$0 crops (2010 dollars); NWS zone IAZ060		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)	295 records, 1996 to 2025 (27 zone-level)		Flood, 2008-06-01, \$100,000 property; \$50,000,000 crops (2008 dollars)		Event records naming jurisdictions in the plan: Des Moines city (118 records), West Des Moines city (26 records), Ankeny city (18 records), Urbandale city (10 records), Windsor Heights city (8 records), Clive city (7 records), Elkhart city (7 records), Grimes city (7 records), Johnston city (7 records), Pleasant Hill city (6 records); and 7 more jurisdictions (see the Excel file). Zone-level records (27) 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)	42 records, 1998 to 2024		Lightning, 2022-05-08, \$400,000 property; \$0 crops (2022 dollars)		Event records naming jurisdictions in the plan: Johnston city (9 records), Urbandale city (4 records), Ankeny city (3 records), Grimes city (3 records), Bondurant city (2 records), Des Moines city (2 records), West Des Moines city (2 records), Elkhart city (1 record), Saylorville CDP (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)	38 records, 1996 to 2025 (38 zone-level)	35 kt (40 mph) to 64 kt (74 mph) (median 52 kt (60 mph)); 36 with a recorded value	64 kt (74 mph) measured gust, High Wind, 2021-12-15; NWS zone IAZ060	High Wind, 1998-11-10, \$1,300,000 property; \$5,100 crops (zone total, 1998 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	730 records, 1955 to 2025	45 kt (52 mph) to 104 kt (120 mph) (median 55 kt (63 mph)); 691 with a recorded value	104 kt (120 mph), measurement type not recorded, Thunderstorm Wind, 1998-06-29; same speed and measurement basis also recorded on 1998-06-29	Thunderstorm Wind, 1998-06-29, \$40,000,000 property; crops not reported (1998 dollars)	Event records naming jurisdictions in the plan: Des Moines city (77 records), Ankeny city (71 records), Urbandale city (43 records), Polk City city (32 records), Altoona city (29 records), Windsor Heights city (29 records), West Des Moines city (24 records), Grimes city (17 records), Johnston city (17 records), Bondurant city (16 records); and 6 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	68 records, 1958 to 2024	F/EF0 to F/EF4 (median between F/EF0 and F/EF1); 62 with a recorded value	F4 tornado, 1974-06-18, 15.3 mi path length (whole path, pre-1996), 400 yd wide, \$25,000,000 property; crops not recorded (1974 dollars), 2 direct deaths, 50 direct injuries	Tornado, 2022-03-05, \$75,000,000 property; \$0 crops (2022 dollars)	Event records naming jurisdictions in the plan: Des Moines city (6 records), Bondurant city (5 records), Runnells city (4 records), Elkhart city (3 records), Alleman city (2 records), Grimes city (2 records), Johnston city (2 records), Saylorville CDP (2 records), West Des Moines city (2 records), Altoona city (1 record); and 3 more jurisdictions (see the Excel file).	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)	76 records, 1996 to 2026 (76 zone-level)		Heavy Snow, 1997-10-26, \$3,640,000 property; \$2,600,000 crops (1997 dollars); NWS zone IAZ060		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: 21 declarations covering 17 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2026-09-01	2026-07-01	DR-4942-IA	Major disaster	Severe Storms and Flooding	Inland Flooding	not yet in FEMA's PA summaries (they cover declarations through 2026-06-30)	new since last plan; within last 5 years	
2024-05-24	2024-05-20	DR-4784-IA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$5,190,196.11	in the 12 months before plan approval; within last 5 years	
2024-05-14	2024-04-26	DR-4779-IA	Major disaster	Severe Storms and Tornadoes	Tornado	PA not declared for this county	in the 12 months before plan approval; within last 5 years	
2020-08-17	2020-08-10	DR-4557-IA	Major disaster	Severe Storms	Hazard not mapped (severe storm title names no single hazard); not counted	\$7,081,022.68		
2020-03-23	2020-01-20	DR-4483-IA	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$111,952,084.48		
2020-03-13	2020-01-20	EM-3480-IA	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4483

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2019-03-23	2019-03-12	DR-4421-IA	Major disaster	Severe Storms and Flooding	Inland Flooding	\$1,385,202.84		
2018-08-20	2018-06-06	DR-4386-IA	Major disaster	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding	Inland Flooding; Strong Wind; Tornado	\$3,841,883.06		
2010-07-29	2010-06-01	DR-1930-IA	Major disaster	Severe Storms, Flooding, and Tornadoes	Inland Flooding; Tornado	\$4,920,610.03		
2008-05-27	2008-05-25	DR-1763-IA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$10,774,870.33		
2007-03-14	2007-02-23	DR-1688-IA	Major disaster	Severe Winter Storms	Winter Weather	\$760,015.71		
2005-09-10	2005-08-29	EM-3239-IA	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	\$34,283.22		
2004-05-25	2004-05-19	DR-1518-IA	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$747,896.65		
1998-07-02	1998-06-13	DR-1230-IA	Major disaster	Severe Storms, Tornadoes and Flooding	Inland Flooding (primary); also designated: Tornado	no Public Assistance recorded		
1997-11-20	1997-10-26	DR-1191-IA	Major disaster	Severe Snowstorms	Winter Weather	no Public Assistance recorded		
1993-07-09	1993-04-13	DR-996-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1990-05-26	1990-05-18	DR-868-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1974-06-24	1974-06-24	DR-443-IA	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1969-08-14	1969-08-14	DR-269-IA	Major disaster	Heavy Rains & Flooding	Inland Flooding	no Public Assistance recorded		
1969-04-25	1969-04-25	DR-259-IA	Major disaster	Flooding	Inland Flooding	no Public Assistance recorded		
1965-04-22	1965-04-22	DR-193-IA	Major disaster	Flooding	Inland Flooding	no Public Assistance recorded		

School districts and special districts in this county: \$2,996,332.54 (included in the county total above). Public Assistance matched by applicant name to the school districts and special districts FEMA lists as plan participants in this county. They have no row of their own in the jurisdiction table, so their total is listed here. These dollars are already included in the county PA column of the declarations table (the FEMA record places each applicant in this county), so this line is not added to it.

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
1962-09-05	1962-09-05	DR-133-IA	Major disaster	Floods	Inland Flooding
1961-03-31	1961-03-31	DR-111-IA	Major disaster	Floods	Inland Flooding
1958-07-05	1958-07-05	DR-86-IA	Major disaster	Floods	Inland Flooding
1954-06-23	1954-06-23	DR-17-IA	Major disaster	Flood	Inland Flooding
1953-06-11	1953-06-11	DR-8-IA	Major disaster	Flood	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.

Public Assistance not placed in any Iowa county: 11 rows, \$7,881,708.52; listed on the Iowa 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 records	In the 12 months before plan approval records	Last 5 years records	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Cold Wave	28	1	1	3	0	0	1996 to 2026-06-30	Includes 9 Frost/Freeze records.
Drought	32	0	7	15	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	670	9	13	54	0	0	1955 to 2026-06-30	
Heat Wave	6	0	0	0	0	0	1996 to 2026-06-30	
Hurricane	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Ice Storm	11	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	295	1	3	10	14	1	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	42	0	1	2	0	0	1996 to 2026-06-30	
Strong Wind	768	25	32	74	1	0	1955 to 2026-06-30	Includes 38 High Wind records.

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Tornado	68	0	7	11	7	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	76	4	4	11	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
2024-01-13	Extreme Cold/ Wind Chill		\$0 property; \$0 crops (zone total, 2024 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level	in the 12 months before plan approval; within last 5 years	B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2023-09-05	Drought		\$0 property; \$0 crops (zone total, 2023 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level	within last 5 years	B1-c worst recorded: Drought
2021-12-15	High Wind	64 kt (74 mph) measured gust	\$0 property; \$0 crops (zone total, 2021 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level	within last 5 years	B1-c worst recorded: High Wind and Strong Wind
2021-07-09	Hail	3.25 in	\$0 property; \$0 crops (2021 dollars)	0, 0	LOVINGTON		B1-c worst recorded: Hail
2018-06-30	Flash Flood		\$1,000,000 property; \$500,000 crops (2018 dollars)	1, 0	ELKHART to WOODLAND		deaths or injuries recorded
2011-07-15	Excessive Heat		\$135,000 property; \$0 crops (zone total, 2011 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level		B1-c worst recorded: Excessive Heat, Heat
2010-08-11	Flash Flood		\$100,000 property; \$25,000 crops (2010 dollars)	1, 4	SANTIAGO		deaths or injuries recorded
2010-01-20	Ice Storm		\$300,000 property; \$0 crops (zone total, 2010 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level		B1-c worst recorded: Ice Storm
2009-10-10	Frost/Freeze		\$0 property; \$2,500,000 crops (zone total, 2009 dollars)	0, 0	NWS zone IAZ060 (POLK), zone-level		B1-c worst recorded: Frost/Freeze
2008-06-01	Flood		\$100,000 property; \$50,000,000 crops (2008 dollars)	0, 0	PLEASANT HILL to HERROLD		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
1998-06-29	Thunderstorm Wind	104 kt (120 mph), measurement type not recorded	\$10,000,000 property; \$25,000 crops (1998 dollars)	0, 0	JOHNSTON		B1-c worst recorded: Thunderstorm Wind
1974-06-18	Tornado	F4, 15.3 mi path length (whole path, pre-1996), 400 yd wide	\$25,000,000 property; crops not recorded (1974 dollars)	2, 50	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,996 rows).

Location is the place NOAA recorded, as written in its data; it need not be a jurisdiction in this plan.

Local data needed: state-declared emergencies, from your state emergency management agency (federal data do not include them).

Tribal and special-area declarations in this state are listed on the state page.

Supports FEMA checklist item B1-e: probability of future events

Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Cold Wave	6	event-days per year	about 6 days per year	Likely	Storm Events event- days in 15 of 30 years, 1996 to 2025 (50%)	114	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	6.46	event-days per year	about 6.46 days per year	Likely	Storm Events event- days in 11 of 30 years, 1996 to 2025 (36.7%)	217	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.000607	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0607%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	6.13	events per year	about 6.13 per year	Highly likely	FEMA annualized frequency (modeled)	233.0 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	7.32	event-days per year	about 7.32 days per year	Likely	Storm Events event- days in 5 of 30 years, 1996 to 2025 (16.7%)	104	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.00987	events per year	about 1 in 101 years	Unlikely	FEMA annualized frequency (modeled)	0	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.932	event-days per year	about 0.932 days per year	Likely	Storm Events event- days in 9 of 30 years, 1996 to 2025 (30%)	63	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	5.07	event-days per year	about 5.07 days per year	Highly likely	Storm Events event- days in 27 of 30 years, 1996 to 2025 (90%)	142	1996 to 2023 (28 years)	see B1-f	
Landslide	0.122	events per year (modeled)	about 1 in 8 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	44.3	days per year with a strike	about 44.3 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	6.01	events per year	about 6.01 per year	Highly likely	FEMA annualized frequency (modeled)	229	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	0.588	events per year	about 0.59 per year	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Wildfire	0.000262	annual probability at a location	chance a given location in the county burns in a year: 0.0262%		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	14.1	event-days per year	about 14.1 days per year	Highly likely	Storm Events event-days in 27 of 30 years, 1996 to 2025 (90%)	268	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	357	30	11.9
Hail	2.00 in+	1996 to 2025	29	30	0.967
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	546	30	18.2
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	73	30	2.43
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	1	30	0.0333
Tornado	EF0-1	1996 to 2025	27	30	0.9
Tornado	EF2-3	1996 to 2025	6	30	0.2
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	3	30	0.1

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	112 of 112	15.8	57.8	81.9	Relatively High 5, Relatively Moderate 87, Relatively Low 19, Very Low 1
Drought	43 of 112	74.3	85.3	99.3	Relatively High 2, Relatively Moderate 7, Relatively Low 26, Very Low 8, No Rating 69
Earthquake	112 of 112	1.1	16.4	73.6	Relatively Low 4, Very Low 108
Hail	112 of 112	25.4	83.3	94.6	Relatively High 13, Relatively Moderate 95, Relatively Low 3, Very Low 1
Heat Wave	112 of 112	1.6	72.6	92.0	Relatively High 10, Relatively Moderate 86, Relatively Low 15, Very Low 1
Hurricane	112 of 112	12.6	18.6	30.5	Very Low 112
Ice Storm	112 of 112	10.5	65.3	94.5	Relatively High 3, Relatively Moderate 40, Relatively Low 67, Very Low 2
Inland Flooding	112 of 112	0.4	27.1	95.6	Relatively High 6, Relatively Moderate 18, Relatively Low 55, Very Low 33
Landslide	112 of 112	13.8	58.0	90.4	Relatively Low 9, Very Low 103
Lightning	112 of 112	0.5	31.8	59.4	Relatively Moderate 6, Relatively Low 95, Very Low 11
Strong Wind	112 of 112	24.7	87.1	99.4	Very High 5, Relatively High 73, Relatively Moderate 33, Relatively Low 1

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	112 of 112	26.8	76.3	99.3	Very High 6, Relatively High 58, Relatively Moderate 46, Relatively Low 1, Very Low 1
Wildfire	107 of 112	20.0	42.6	85.6	Relatively Low 14, Very Low 93, No Rating 5
Winter Weather	112 of 112	17.1	58.5	86.0	Relatively High 6, Relatively Moderate 86, Relatively Low 19, 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
Polk County	County	Approved, expires 2029-10-29	FMA RL 1, SRL 0; any 4	\$4,996,785.66	0 total; 0 since its plan	Includes \$4,138,928.54 for declarations not counted as hazard incidents (DR-4483-IA).
Alleman city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$20,121.17	27 total; 0 since its plan	Includes \$20,121.17 for declarations not counted as hazard incidents (DR-4557-IA).
Altoona city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$290,279.14	51 total; 3 since its plan	Includes \$125,158.21 for declarations not counted as hazard incidents (DR-4557-IA).
Ankeny city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$2,608,197.80	140 total; no approved plan	Includes \$889,259.13 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Bondurant city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$379,520.91	34 total; 2 since its plan	Includes \$188,576.75 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Carlisle city	City	Approved, expires 2027-12-21	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Clive city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 3; any 11	\$442,014.16	34 total; 0 since its plan	Includes \$185,058.70 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Des Moines city	City	Approved, expires 2029-10-29	FMA RL 2, SRL 5; any 33	\$13,366,687.21	300 total; 2 since its plan	Includes \$4,231,529.40 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA, EM-3239-IA).
Elkhart city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$38,449.27	25 total; no approved plan	
Grimes city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$148,023.15	56 total; 0 since its plan	Includes \$56,634.97 for declarations not counted as hazard incidents (DR-4557-IA).

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>	
Johnston city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 3	\$1,191,104.43	61 total; 0 since its plan	Includes \$177,312.53 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Mitchellville city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$124,054.92	17 total; 0 since its plan	Includes \$82,985.22 for declarations not counted as hazard incidents (DR-4557-IA).
Pleasant Hill city	City	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible	FMA RL 1, SRL 0; any 2	\$380,992.44	12 total; no approved plan	Includes \$74,985.45 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Polk City city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$276,179.63	56 total; 0 since its plan	Includes \$85,456.79 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).
Runnells city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	19 total; 0 since its plan	
Saylorville CDP	Township	Plan 110028 approved 2024-10-30, pending adoption here; not yet eligible		no Public Assistance recorded	16 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Sheldahl city	City	Approved, expires 2030-01-07	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; 0 since its plan	
Urbandale city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 0	\$1,144,595.47	89 total; 2 since its plan	Includes \$223,050.12 for declarations not counted as hazard incidents (DR-4557-IA).
West Des Moines city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 2; any 12	\$935,245.06	88 total; 0 since its plan	
Windsor Heights city	City	Approved, expires 2029-10-29	FMA RL 0, SRL 0; any 2	\$326,705.32	64 total; 1 since its plan	Includes \$120,026.22 for declarations not counted as hazard incidents (DR-4483-IA, DR-4557-IA).

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 2024-10-30 <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 <i>nominal dollars</i>
Cold Wave	\$105,449,582,424	\$142,793,189	492,316	\$36,418	\$370,654	\$9,362,918	under 0.0001%		\$0	
Drought	n/a	\$92,280,543	n/a	n/a	\$3,074,289	n/a	3.33% (agriculture)			
Earthquake	\$187,357,159,080	n/a	492,401	\$572,541	n/a	\$247,340	0.000306%			
Hail	\$105,449,582,424	\$142,793,189	492,316	\$1,754,918	\$83,374	\$5,553,241	0.00166%	\$0		
Heat Wave	\$105,449,582,424	\$142,793,189	492,316	\$7,098	\$3	\$10,703,503	under 0.0001%			
Hurricane	\$105,449,582,424	\$142,793,189	492,316	\$13,070	\$1,219	under \$1	under 0.0001%			
Ice Storm	\$105,437,836,806	n/a	492,216	\$1,198,531	n/a	\$160,658	0.00114%			

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 2024-10-30 <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 <i>nominal dollars</i>
Inland Flooding	\$105,421,104,082	\$17,336,148	6,079	\$58,745,003	\$1,046,826	\$798,457	n/a (see note)	\$20,000	1 declaration not yet in FEMA's PA summaries (they cover declarations through 2026-06-30)	
Landslide	\$1,231,910,311	n/a	5,461	\$2,365	n/a	\$3,774	0.000192%			
Lightning	\$105,449,582,424	n/a	492,316	\$120,762	n/a	\$694,871	0.000115%			
Strong Wind	\$105,449,582,424	\$142,793,189	492,316	\$7,538,045	\$104,554	\$3,849,344	0.00715%	\$93,200	\$0	
Tornado	\$105,449,582,424	\$142,793,189	492,316	\$17,608,077	\$6,890	\$13,333,103	0.0167%			
Wildfire	\$12,679,237,687	\$24,741,706	67,219	\$77,413	\$57	\$13,281	0.000611%			
Winter Weather	\$105,449,582,424	\$142,793,189	492,316	\$175,380	\$194	\$330,456	0.000166%		\$0	

Totals since 2024-10-30 (Storm Events through 2026-06-30): 33 county-coded records, 33 with a damage value recorded (including \$0), \$113,200; 7 zone-level records, 7 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: the 1 counted declaration is not yet in FEMA's PA summaries (they cover declarations through 2026-06-30).

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	492,316
Building value (total, not at risk)	\$105,449,582,424
Agriculture value (total, not at risk)	\$142,793,189
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$92,537,680
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)	\$45,050,946
Social vulnerability rating	Very Low
Community resilience rating	Very High
NRI version	December 2025

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

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

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	4	Severe repetitive loss, FMA definition (44 CFR 77.2)	10
Repetitive loss, NFIP insurance definition	61	Severe repetitive loss, NFIP insurance definition	5

The state NFIP coordinator's list, the source FEMA's Handbook names, often uses the NFIP insurance definition (second row).

Repeat-flood properties: county and state-level rows

Sources: 1, 4

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
County total	4	10	61	5	67	4	31
of which: Des Moines city	2	5	31	4	33	0	14
of which: West Des Moines city	0	2	10	0	12	2	3
of which: Clive city	0	3	9	1	11	2	7
of which: Pleasant Hill city	1	0	2	0	2	0	1
of which: Windsor Heights city	0	0	2	0	2	0	2
of which: Johnston city	0	0	3	0	3	0	2
of which: Polk County (unincorporated area)	1	0	4	0	4	0	2
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>
Polk County	190901	1	0	4	0	4	0	2
Alleman city	190304	0	0	0	0	0	0	0
Altoona city	190546	0	0	0	0	0	0	0
Ankeny city	190226	0	0	0	0	0	0	0
Bondurant city	190707	0	0	0	0	0	0	0
Carlisle city	190274	0	0	0	0	0	0	0
Clive city	190488	0	3	9	1	11	2	7
Des Moines city	190227	2	5	31	4	33	0	14
Elkhart city	190229	0	0	0	0	0	0	0
Grimes city	190228	0	0	0	0	0	0	0
Johnston city	190745	0	0	3	0	3	0	2
Mitchellville city	190619	0	0	0	0	0	0	0
Pleasant Hill city	190489	1	0	2	0	2	0	1
Polk City city	190933	0	0	0	0	0	0	0
Runnells city	190800	0	0	0	0	0	0	0
Sheldahl city	190804	0	0	0	0	0	0	0
Urbandale city	190230	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>
West Des Moines city	190231	0	2	10	0	12	2	3
Windsor Heights city	190687	0	0	2	0	2	0	2

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

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

County repeat-flood properties by occupancy group

Sources: 1, 4

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	1	2	40	1	41	1	16
2 to 4 unit residential	1	1	0	0	2	1	0
other residential	0	1	1	0	2	1	1
non-residential	2	6	20	4	22	1	14
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 58 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_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_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/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).

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Cite this: Hazard Plain (2026). Polk County, IA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 19153). Automated baseline. <https://hazardplain.org/ia/19153/> 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