

Cowley County, KS

Risk-assessment baseline packet

County FIPS: 20035 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 2029-08-21. Plan: Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), approved 2024-08-22.

Since the plan was approved on 2024-08-22: 2 new hazard declarations (2 incidents) and 61 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 (\$7,698,959 a year), Tornado (\$7,468,506) and Cold Wave (\$5,072,765).

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; 20035 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 2029-08-21	Plan:	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)
Approved:	2024-08-22	Days to expiry:	1,056

What changed since your last plan (approved 2024-08-22)

New federal declarations:	2 new hazard declarations (2 incidents): DR-4891-KS (Severe Storms, Straight-Line Winds, Tornadoes, and Flooding), DR-4943-KS (Severe Storms, Straight-Line Winds, Tornadoes, and Flooding)	Storm Events records since approval:	61 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 3, SRL 2 (44 CFR 77.2); any definition: 10	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: 37 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
Cowley County	County	Approved, expires 2029-08-21	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)	2024-08-22	2029-08-21	1,056		this jurisdiction approved 2024-12-07
Name not given in FEMA data (ID 2012390)	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Arkansas City city	City	Approved, expires 2029-08-21	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)	2024-08-22	2029-08-21	1,056		this jurisdiction approved 2024-12-26
Atlanta city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Burden city	City	Approved, expires 2029-08-21	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)	2024-08-22	2029-08-21	1,056		this jurisdiction approved 2024-09-27
Cambridge city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Dexter city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Geuda Springs city	City	Approved, expires 2029-08-21	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)	2024-08-22	2029-08-21	1,056		this jurisdiction approved 2025-03-12
Parkerfield city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Winfield city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 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>		
Bolton township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Creswell township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Fairview township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Liberty township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Maple township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Ninnescah township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Omnia township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Pleasant Valley township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Richland township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Rock Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 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
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Salem township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Sheridan township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Silver Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Silverdale township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Spring Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Vernon township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Arkansas City Unified School District 470	School/School District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Central Unified School District 462	School/School District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Dexter Unified School District 471	School/School District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Udall Unified School District 463	School/School District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 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
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Winfield Unified School District 465	School/School District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Cowley County Community College	College/University	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Cowley FD #1	Fire/EMS District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Cowley FD #3	Fire/EMS District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Cowley FD #8	Fire/EMS District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
FD #2	Fire/EMS District	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992), pending adoption here	2024-08-22 by FEMA; not yet adopted here	2029-08-21 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Sumner Cowley Electric	Electric/Power Authority	Approved, expires 2029-08-21	Region G Multi-Jurisdictional HM Plan (FEMA plan 109992)	2024-08-22	2029-08-21	1,056		this jurisdiction approved 2024-10-07

Plan 109992 lists 316 other participants not on this page, 187 of them not covered by it yet (named in the Excel file).

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 Low	Relatively Low	\$7,609,688	\$1,552	\$87,720	\$7,698,959	64	
2	Tornado	Relatively High	Relatively Moderate	\$2,321,764	\$6,065	\$5,140,677	\$7,468,506	53	
3	Cold Wave	Relatively Moderate	Relatively High	\$58	\$90,722	\$4,981,984	\$5,072,765	3	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).
4	Wildfire	Relatively Moderate	Relatively Moderate	\$1,604,187	\$824	\$52,618	\$1,657,629	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
5	Strong Wind	Relatively Moderate	Relatively Moderate	\$723,571	\$5,638	\$708,375	\$1,437,584	435	Includes 15 High Wind and 4 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
6	Heat Wave	Relatively Low	Relatively Low	\$8,739	\$48	\$1,338,538	\$1,347,324	13	
7	Hail	Relatively Moderate	Relatively Moderate	\$532,378	\$318,045	\$41,603	\$892,026	604	
8	Ice Storm	Relatively High	Relatively High	\$470,285	n/a	\$169,878	\$640,163	4	
9	Drought	Relatively Moderate	Relatively Low	n/a	\$364,482	n/a	\$364,482	49	
10	Lightning	Relatively Low	Relatively Low	\$17,198	n/a	\$151,887	\$169,085	12	
11	Earthquake	Very Low	Very Low	\$111,180	n/a	\$39,909	\$151,089		Storm Events does not record earthquakes.
12	Winter Weather	Relatively Moderate	Relatively Moderate	\$68,920	\$116	\$41,042	\$110,078	57	Includes 2 Sleet records (outside NRI's Winter Weather definition).
13	Hurricane	Very Low	Very Low	\$3,757	\$2,506	\$20	\$6,283	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Landslide	Very Low	Very Low	\$204	n/a	\$1,959	\$2,162	0	Declared 1 time; 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

Sources: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 4935 (Relatively Low, 48.8); tract 4940 (Relatively Low, 47.5); tract 4934 (Relatively Low, 42.2)
Hurricane	tract 4931 (Very Low, 36.5); tract 4933 (Very Low, 34.0); tract 4932 (Very Low, 32.3)
Landslide	tract 4931 (Relatively Low, 93.3); tract 4933 (Relatively Low, 84.1); tract 4939 (Relatively Low, 83.8)
Tornado	tract 4935 (Very High, 99.7); tract 4938 (Very High, 99.7); tract 4937 (Very High, 99.1)
Wildfire	tract 4931 (Relatively High, 98.4); tract 4932 (Relatively High, 96.8); tract 4933 (Relatively High, 96.8)

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 4935 is Census Tract 4935). 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	2 records, 2011 to 2021 (2 zone-level)	1 day to 13 days (median 7 days); 2 with a recorded value	13 consecutive days, 2021-02-06 to 2021-02-18, 1 direct death, zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	1 record, 2007 (1 zone-level)		No crop damage reported in 1 record.		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	49 records, 2011 to 2026 (49 zone-level)	20 days to 549 days (median 122 days); 7 with a recorded value	549 days (18 months), 2022-07-01 to 2023-12-31, a run of 18 consecutive Storm Events drought records, zone-level	Drought, 2011-07-01, property not reported; \$4,000,000 crops (zone total, 2011 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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Hail	hail size (inches)	727 records, 1955 to 2026	0.75 in to 4.5 in (median 1 in); 727 with a recorded value	4.5 in hail, 1998-06-13; same size also recorded on 1992-05-10, 1997-05-13		Event records naming jurisdictions in the plan: Arkansas City city (170 records), Winfield city (141 records), Atlanta city (46 records), Burden city (39 records), Dexter city (36 records), Cambridge city (20 records), Silverdale township (15 records).	
Excessive Heat, Heat	heat index (in event narratives)	13 records, 2006 to 2021 (13 zone-level)	1 day to 18 days (median 3 days); 11 with a recorded value	18 consecutive days, 2011-07-15 to 2011-08-01, 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)	4 records, 2001 to 2020 (4 zone-level)		Ice Storm, 2007-12-11, \$200,000 property; \$0 crops (2007 dollars); NWS zone KSZ093		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	64 records, 1998 to 2024 (2 zone-level)		Flood, 1998-11-01, \$8,000,000 property; crops not reported (1998 dollars); NWS zone KSZ093		Event records naming jurisdictions in the plan: Winfield city (19 records), Arkansas City city (16 records), Atlanta city (7 records), Dexter city (5 records), Burden city (2 records), Cambridge city (1 record). Zone-level records (2) 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)	12 records, 1999 to 2017		Lightning, 2009-08-27, \$100,000 property; crops not reported (2009 dollars)		Event records naming jurisdictions in the plan: Arkansas City city (5 records), Winfield city (3 records), Dexter city (2 records), Silverdale township (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)	19 records, 2001 to 2026 (19 zone-level)	35 kt (40 mph) to 65 kt (75 mph) (median 50 kt (58 mph)); 19 with a recorded value	65 kt (75 mph) estimated, High Wind, 2001-04-11; NWS zone KSZ093	High Wind, 2003-07-22, \$100,000 property; crops not reported (zone total, 2003 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	514 records, 1955 to 2026	43 kt (49 mph) to 99 kt (114 mph) (median 56 kt (64 mph)); 475 with a recorded value	99 kt (114 mph), measurement type not recorded, Thunderstorm Wind, 1994-07-01, 1 direct injury	Thunderstorm Wind, 1993-05-08, \$5,000,000 property; \$5,000 crops (1993 dollars)	Event records naming jurisdictions in the plan: Arkansas City city (118 records), Winfield city (97 records), Burden city (23 records), Atlanta city (22 records), Dexter city (14 records), Silverdale township (9 records), Cambridge city (6 records), Geuda Springs city (2 records).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Tornado	Enhanced Fujita (Fujita before Feb 2007)	89 records, 1953 to 2024	F/EF0 to F/EF5 (median F/EF0); 86 with a recorded value	F5 tornado, 1955-05-25, 2.3 mi path length (whole path, pre-1996), 1,320 yd wide, \$250,000 property; crops not recorded (1955 dollars), 75 direct deaths, 270 direct injuries	Tornado, 1991-04-26, \$25,000,000 property; crops not recorded (1991 dollars)	Event records naming jurisdictions in the plan: Arkansas City city (10 records), Dexter city (8 records), Winfield city (6 records), Cambridge city (5 records), Atlanta city (3 records), Burden city (3 records), Silverdale township (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	57 records, 1998 to 2026 (57 zone-level)		Winter Storm, 2009-03-27, \$2,000,000 property; crops not reported (2009 dollars); NWS zone KSZ093		Countywide (zone-level records).	

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: 27 declarations covering 23 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	2026-06-18	DR-4943-KS	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, and Flooding	Inland Flooding; Strong Wind; Tornado	not yet in FEMA's PA summaries (they cover declarations through 2026-06-30)	new since last plan; within last 5 years	
2025-09-11	2025-06-03	DR-4891-KS	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, and Flooding	Inland Flooding; Strong Wind; Tornado	\$492,934.80	new since last plan; within last 5 years	
2020-03-29	2020-01-20	DR-4504-KS	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$322,283.23		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2020-03-13	2020-01-20	EM-3481-KS	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4504
2019-06-20	2019-04-28	DR-4449-KS	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, Flooding, Landslides, and Mudslides	Inland Flooding; Landslide; Strong Wind; Tornado	\$2,160,596.32		
2019-05-28	2019-05-09	EM-3412-KS	Emergency	Tornadoes and Flooding	Inland Flooding; Tornado	no Public Assistance recorded		same incident as DR-4449
2019-02-25	2018-10-04	DR-4417-KS	Major disaster	Severe Storms, Straight-Line Winds, and Flooding	Inland Flooding; Strong Wind	\$157,273.41		
2016-10-20	2016-09-02	DR-4287-KS	Major disaster	Severe Storms and Flooding	Inland Flooding	\$301,444.98		
2015-07-20	2015-05-04	DR-4230-KS	Major disaster	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding	Inland Flooding; Strong Wind; Tornado	\$662,420.43		
2013-10-22	2013-07-22	DR-4150-KS	Major disaster	Severe Storms, Straight-Line Winds, Tornadoes, and Flooding	Inland Flooding; Strong Wind; Tornado	\$407,585.62		
2010-03-09	2009-12-22	DR-1885-KS	Major disaster	Severe Winter Storms and Snowstorm	Winter Weather	\$195,180.96		
2009-06-25	2009-04-25	DR-1849-KS	Major disaster	Severe Storms, Flooding, Straight-Line Winds, and Tornadoes	Inland Flooding; Strong Wind; Tornado	\$261,629.45		
2009-06-24	2009-03-26	DR-1848-KS	Major disaster	Severe Winter Storm and Record and Near Record Snow	Winter Weather	\$335,290.92		
2008-10-31	2008-09-11	DR-1808-KS	Major disaster	Severe Storms, Flooding, and Tornadoes	Inland Flooding; Tornado	\$193,349.31		
2008-07-09	2008-05-22	DR-1776-KS	Major disaster	Severe Storms, Flooding and Tornadoes	Inland Flooding; Tornado	\$993,876.11		
2007-12-12	2007-12-06	EM-3282-KS	Emergency	Severe Winter Storms	Winter Weather	no Public Assistance recorded		
2007-07-02	2007-06-26	DR-1711-KS	Major disaster	Severe Storms and Flooding	Inland Flooding	\$1,621,102.50		
2007-05-06	2007-05-04	DR-1699-KS	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$541,899.59		
2005-09-10	2005-09-01	EM-3236-KS	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
2005-02-08	2005-01-04	DR-1579-KS	Major disaster	Severe Winter Storms, Heavy Rains, and Flooding	Inland Flooding; Winter Weather	\$538,320.59		
2002-02-06	2002-01-29	DR-1402-KS	Major disaster	Severe Winter Ice Storm	Ice Storm	\$3,958,657.98		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
1998-11-05	1998-10-30	DR-1258-KS	Major disaster	Ks-Flooding 10/31/98	Inland Flooding	no Public Assistance recorded		
1991-04-29	1991-04-26	DR-903-KS	Major disaster	Severe Storms & Tornadoes	Tornado	no Public Assistance recorded		
1986-10-22	1986-10-02	DR-780-KS	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded		
1979-06-15	1979-06-15	DR-588-KS	Major disaster	Severe Storms & Flooding	Inland Flooding	PA not declared for this county		
1976-07-13	1976-07-13	DR-514-KS	Major disaster	Severe Storms, High Winds & Flooding	Inland Flooding (primary); also designated: Strong Wind	no Public Assistance recorded		
1973-09-28	1973-09-28	DR-403-KS	Major disaster	Severe Storms, Tornadoes & Flooding	Inland Flooding; Tornado	no Public Assistance recorded		

School districts and special districts in this county: \$3,522 (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
1982-06-28	1982-06-28	DR-663-KS	Major disaster	Severe Storms and Flooding	Inland Flooding
1958-11-06	1958-11-06	DR-88-KS	Major disaster	Floods	Inland Flooding
1957-09-05	1957-09-05	DR-81-KS	Major disaster	Floods	Inland Flooding
1955-05-27	1955-05-27	DR-34-KS	Major disaster	Tornado	Tornado

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

Public Assistance filed under this county for declarations that do not list it: 1 row, \$7,821.38

Sources: 2, 3

FEMA number	Declared	Title	Applicant	PA obligated <i>federal share obligated, nominal dollars</i>
DR-4063-KS	2012-05-24	Severe Storms, Tornadoes, Straight-Line Winds, and Flooding	Southwestern College	\$7,821.38

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 Kansas county: 4 rows, \$183,565.84; listed on the Kansas 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	3	0	0	0	0	0	1996 to 2026-06-30	Includes 1 Frost/Freeze record.
Drought	49	3	4	21	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	727	24	15	52	0	0	1955 to 2026-06-30	
Heat Wave	13	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	4	0	0	0	1	0	1996 to 2026-06-30	
Inland Flooding	64	0	1	3	18	2	1996 to 2026-06-30	
Landslide	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)
Lightning	12	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	533	31	12	69	8	2	1955 to 2026-06-30	Includes 15 High Wind and 4 Strong Wind records.
Tornado	89	0	2	5	11	2	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	57	3	4	12	4	0	1996 to 2026-06-30	Includes 2 Sleet records.

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
2022-07-01	Drought		damage not reported	0, 0	NWS zone KSZ093 (COWLEY), zone-level	within last 5 years	B1-c worst recorded: Drought
2021-02-06	Extreme Cold/ Wind Chill		\$0 property; \$0 crops (zone total, 2021 dollars)	1, 0	NWS zone KSZ093 (COWLEY), zone-level		deaths or injuries recorded
2011-07-15	Excessive Heat		damage not reported	0, 0	NWS zone KSZ093 (COWLEY), zone-level		B1-c worst recorded: Excessive Heat, Heat
2009-08-27	Lightning		\$100,000 property; crops not reported (2009 dollars)	0, 0	SILVERDALE		B1-c worst recorded: Lightning
2009-03-27	Winter Storm		\$2,000,000 property; crops not reported (zone total, 2009 dollars)	0, 0	NWS zone KSZ093 (COWLEY), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2007-12-11	Ice Storm		\$200,000 property; \$0 crops (zone total, 2007 dollars)	0, 0	NWS zone KSZ093 (COWLEY), zone-level		B1-c worst recorded: Ice Storm
2001-04-11	High Wind	65 kt (75 mph) estimated	damage not reported	0, 0	NWS zone KSZ093 (COWLEY), zone-level		B1-c worst recorded: High Wind and Strong Wind
1998-11-01	Flood		\$8,000,000 property; crops not reported (zone total, 1998 dollars)	0, 0	NWS zone KSZ093 (COWLEY), zone-level		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
1998-06-13	Hail	4.5 in	\$200,000 property; crops not reported (1998 dollars)	0, 0	UDALL		B1-c worst recorded: Hail
1994-07-01	Thunderstorm Wind	99 kt (114 mph), measurement type not recorded	\$5,000,000 property; crops not recorded (1994 dollars)	0, 1	Rock		B1-c worst recorded: Thunderstorm Wind
1956-04-02	Tornado	F4, 23.2 mi path length (whole path, pre-1996), 880 yd wide	\$2,500,000 property; crops not recorded (1956 dollars)	1, 6	location not recorded		deaths or injuries recorded
1955-05-25	Tornado	F5, 2.3 mi path length (whole path, pre-1996), 1,320 yd wide	\$250,000 property; crops not recorded (1955 dollars)	75, 270	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,551 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	1.32	event-days per year	about 1.32 days per year	Possible	Storm Events event- days in 2 of 30 years, 1996 to 2025 (6.67%)	25	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	44.2	event-days per year	about 44.2 days per year	Likely	Storm Events event- days in 8 of 30 years, 1996 to 2025 (26.7%)	1,386	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.000856	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0856%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	9.24	events per year	about 9.24 per year	Highly likely	FEMA annualized frequency (modeled)	351.3 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	15.5	event-days per year	about 15.5 days per year	Likely	Storm Events event- days in 4 of 30 years, 1996 to 2025 (13.3%)	196	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.00554	events per year	about 1 in 180 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	0.608	event-days per year	about 0.608 days per year	Likely	Storm Events event- days in 4 of 30 years, 1996 to 2025 (13.3%)	41	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	1.43	event-days per year	about 1.43 days per year	Likely	Storm Events event- days in 19 of 30 years, 1996 to 2025 (63.3%)	40	1996 to 2023 (28 years)	see B1-f	
Landslide	0.249	events per year (modeled)	about 1 in 4 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	50.8	days per year with a strike	about 50.8 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	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
Strong Wind	6.81	events per year	about 6.81 per year	Highly likely	FEMA annualized frequency (modeled)	259	1986 to 2023 (38 years)	countywide	
Tornado	1.01	events per year	about 1.01 per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Wildfire	0.00317	annual probability at a location	chance a given location in the county burns in a year: 0.317%		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	9.68	event-days per year	about 9.68 days per year	Likely	Storm Events event- days in 22 of 30 years, 1996 to 2025 (73.3%)	184	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	341	30	11.4
Hail	2.00 in+	1996 to 2025	34	30	1.13
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	373	30	12.4
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	30	30	1
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	2	30	0.0667
Tornado	EF0-1	1996 to 2025	48	30	1.6
Tornado	EF2-3	1996 to 2025	2	30	0.0667
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	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	11 of 11	89.8	93.9	98.9	Very High 4, Relatively High 7
Drought	9 of 11	75.2	87.3	95.9	Relatively Moderate 4, Relatively Low 3, Very Low 2, No Rating 2
Earthquake	11 of 11	17.8	33.4	48.8	Relatively Low 3, Very Low 8
Hail	11 of 11	73.7	86.5	95.2	Relatively High 4, Relatively Moderate 7
Heat Wave	11 of 11	73.9	82.3	94.0	Relatively High 4, Relatively Moderate 7
Hurricane	11 of 11	22.7	28.6	36.5	Very Low 11
Ice Storm	11 of 11	90.2	94.7	97.4	Relatively High 11
Inland Flooding	11 of 11	11.0	64.7	78.8	Relatively High 1, Relatively Moderate 8, Relatively Low 1, Very Low 1
Landslide	11 of 11	26.5	61.3	93.3	Relatively Low 4, Very Low 7
Lightning	11 of 11	45.7	57.9	83.0	Relatively High 1, Relatively Moderate 8, Relatively Low 2
Strong Wind	11 of 11	86.7	94.1	98.4	Very High 2, Relatively High 9

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	11 of 11	93.6	97.7	99.7	Very High 11
Wildfire	11 of 11	81.5	92.1	98.4	Relatively High 3, Relatively Moderate 5, Relatively Low 3
Winter Weather	11 of 11	68.2	83.1	92.7	Relatively High 9, Relatively Moderate 2

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
Cowley County	County	Approved, expires 2029-08-21	FMA RL 1, SRL 0; any 1	\$285,486.62	0 total; 0 since its plan	
Name not given in FEMA data (ID 2012390)	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Arkansas City city	City	Approved, expires 2029-08-21	FMA RL 0, SRL 0; any 2	\$36,890.88	319 total; 22 since its plan	
Atlanta city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$17,618.91	78 total; no approved plan	
Burden city	City	Approved, expires 2029-08-21	FMA RL 0, SRL 0; any 0	\$34,701	67 total; 0 since its plan	
Cambridge city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$7,887.23	32 total; no approved plan	
Dexter city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$19,431.22	65 total; no approved plan	
Geuda Springs city	City	Approved, expires 2029-08-21	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	2 total; 0 since its plan	

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place	Notes
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	<i>all years; since its plan</i>	
Parkerfield city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	0 total; no approved plan	
Winfield city	City	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible	FMA RL 2, SRL 2; any 7	\$4,593,289.37	266 total; no approved plan	
Bolton township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$432,211.63	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Creswell township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$332,457.23	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Fairview township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$362,299.20	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Liberty township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Maple township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$75,156.61	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Ninnescah township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$49,522.46	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Omnia township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$24,263.63	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Pleasant Valley township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$5,692.50	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Richland township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$202,684.78	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>	
Rock Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$395,578.73	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Salem township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$204,221.23	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Sheridan township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Silver Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$92,238.81	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Silverdale township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$9,203.90	26 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Spring Creek township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Vernon township	Township	Plan 109992 approved 2024-08-22, pending adoption here; not yet eligible		\$58,852.50	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.

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 2024-08-22 <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	\$8,497,478,783	\$124,234,277	34,541	\$58	\$90,722	\$4,981,984	under 0.0001%				
Drought	n/a	\$53,204,057	n/a	n/a	\$364,482	n/a	0.685% (agriculture)		\$0		NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$15,569,635,626	n/a	34,549	\$111,180	n/a	\$39,909	0.000714%				
Hail	\$8,497,478,783	\$124,234,277	34,541	\$532,378	\$318,045	\$41,603	0.00627%	\$0			
Heat Wave	\$8,497,478,783	\$124,234,277	34,541	\$8,739	\$48	\$1,338,538	0.000103%				
Hurricane	\$8,476,873,575	\$119,364,489	34,512	\$3,757	\$2,506	\$20	under 0.0001%				
Ice Storm	\$8,497,402,357	n/a	34,540	\$470,285	n/a	\$169,878	0.00553%				
Inland Flooding	\$8,495,814,316	\$30,092,249	922	\$7,609,688	\$1,552	\$87,720	n/a (see note)			\$492,934.80	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	\$51,898,194	n/a	197	\$204	n/a	\$1,959	0.000393%				
Lightning	\$8,497,478,783	n/a	34,541	\$17,198	n/a	\$151,887	0.000202%				
Strong Wind	\$8,497,478,783	\$124,234,277	34,541	\$723,571	\$5,638	\$708,375	0.00852%	\$0	\$0	\$492,934.80	
Tornado	\$8,497,478,783	\$124,234,277	34,541	\$2,321,764	\$6,065	\$5,140,677	0.0273%			\$492,934.80	
Wildfire	\$2,296,056,767	\$56,630,312	9,173	\$1,604,187	\$824	\$52,618	0.0699%				
Winter Weather	\$8,497,478,783	\$124,234,277	34,541	\$68,920	\$116	\$41,042	0.000811%		\$0		

Totals since 2024-08-22 (Storm Events through 2026-06-30): 53 county-coded records, 53 with a damage value recorded (including \$0), \$0; 8 zone-level records, 8 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: \$492,934.80 on 2 counted declarations, 1 of them with Public Assistance.

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	34,541
Building value (total, not at risk)	\$8,497,478,783
Agriculture value (total, not at risk)	\$124,234,277
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$14,261,926
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)	\$12,756,209
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)	3	Severe repetitive loss, FMA definition (44 CFR 77.2)	2
Repetitive loss, NFIP insurance definition	9	Severe repetitive loss, NFIP insurance definition	1

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	3	2	9	1	10	0	0
of which: Arkansas City city	0	0	2	0	2	0	0
of which: Winfield city	2	2	7	1	7	0	0
of which: Cowley County (unincorporated area)	1	0	0	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>
Cowley County	200563	1	0	0	0	1	0	0
Arkansas City city	200070	0	0	2	0	2	0	0
Atlanta city	200386	0	0	0	0	0	0	0
Burden city	200473	0	0	0	0	0	0	0
Cambridge city	200140	0	0	0	0	0	0	0
Dexter city	200404	0	0	0	0	0	0	0
Geuda Springs city	200414	0	0	0	0	0	0	0
Parkerfield city	200630	0	0	0	0	0	0	0
Winfield city	200071	2	2	7	1	7	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	2	1	6	0	7	0	0
2 to 4 unit residential	0	0	0	0	0	0	0
other residential	0	0	0	0	0	0	0
non-residential	1	1	3	1	3	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 7 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_scsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scsd_national.zip), https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)

What this packet is and what the plan adds

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

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

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

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Cite this: Hazard Plain (2026). Cowley County, KS: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 20035). Automated baseline. <https://hazardplain.org/ks/20035/> 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