

Wake County, NC

Risk-assessment baseline packet

County FIPS: 37183 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 2029-11-19. Plan: Wake County (FEMA plan 110168), approved 2024-11-20.
Since the plan was approved on 2024-11-20: 1 new hazard declaration (1 incident): EM-3637-NC (Severe Winter Storm).
NOAA Storm Events records since that date: 88 records (data through 2026-06-30).
Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$221,684,606 a year), Tornado (\$20,021,385) and Heat Wave (\$14,722,390).
Repetitive-loss flood properties now: FMA RL 7, SRL 33 (44 CFR 77.2); any definition: 157.
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; 37183 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 2029-11-19	Plan:	Wake County (FEMA plan 110168)
Approved:	2024-11-20	Days to expiry:	1,146

What changed since your last plan (approved 2024-11-20)

New federal declarations:	1 new hazard declaration (1 incident): EM-3637-NC (Severe Winter Storm)	Storm Events records since approval:	88 records (data through 2026-06-30)
Repetitive loss now:	FMA RL 7, SRL 33 (44 CFR 77.2); any definition: 157	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: 13 rows, in the section "Plan clock: Plan status for every jurisdiction listed in this county" on the following pages.

State plan status and tribal plans in this state: see the state page.

Plan clock

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry negative = days since expiry	Notes
Wake County (unincorporated area)	Unincorporated	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	
Apex town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	
Cary town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-02-10
Fuquay-Varina town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-05-29
Garner town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-05-29
Holly Springs town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-02-10
Knightdale town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	
Morrisville town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-04-11
Raleigh city	City	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-02-10
Rolesville town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-04-11
Wake Forest town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-02-10
Wendell town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-05-29
Zebulon town	Town	Approved, expires 2029-11-19	Wake County (FEMA plan 110168)	2024-11-20	2029-11-19	1,146	this jurisdiction approved 2025-05-29

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

- dam failure (incl. upstream dams)
- levee failure
- flash flood as its own subtype
- ice jams
- debris flows
- erosion (riverine and coastal)
- land subsidence and sinkholes

- expansive soils

The 18 National Risk Index hazards, ranked by expected annual loss (EAL)

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Relatively High	Relatively High	\$220,684,212	\$60,824	\$939,570	\$221,684,606	291	
2	Tornado	Relatively High	Relatively High	\$9,932,083	\$2,017	\$10,087,286	\$20,021,385	20	
3	Heat Wave	Relatively High	Relatively High	\$316	\$154	\$14,721,921	\$14,722,390	7	
4	Hail	Relatively High	Relatively High	\$12,607,523	\$34,236	\$59,206	\$12,700,965	326	
5	Hurricane	Relatively Moderate	Relatively High	\$10,988,327	\$403,946	\$547,593	\$11,939,866	13	
6	Cold Wave	Relatively Moderate	Relatively High	\$33,876	\$43,652	\$6,651,284	\$6,728,811	2	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).
7	Earthquake	Relatively Low	Relatively Moderate	\$4,452,431	n/a	\$1,486,064	\$5,938,494		Storm Events does not record earthquakes.
8	Lightning	Relatively High	Relatively High	\$140,968	n/a	\$2,000,377	\$2,141,345	41	
9	Ice Storm	Relatively High	Relatively High	\$1,179,277	n/a	\$349,552	\$1,528,829	3	
10	Strong Wind	Relatively Low	Relatively Moderate	\$289,510	\$361	\$571,294	\$861,164	664	Includes 7 High Wind and 15 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
11	Winter Weather	Relatively Moderate	Relatively High	\$122,267	\$351	\$302,586	\$425,204	66	
12	Drought	Relatively Low	Relatively Low	n/a	\$247,772	n/a	\$247,772	0	Declared 2 times; no Storm Events record of this type.
13	Wildfire	Very Low	Relatively Low	\$100,088	\$16	\$14,433	\$114,537	1	
14	Landslide	Relatively Low	Relatively Low	\$10,354	n/a	\$196	\$10,550	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 landslide records (Storm Events records this hazard only in part).

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

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

Supports FEMA checklist item B1-b: hazard location

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

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

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

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 527.01 (Relatively Low, 77.5); tract 531.12 (Relatively Low, 71.3); tract 520.01 (Relatively Low, 71.0)
Hurricane	tract 534.11 (Relatively Moderate, 80.8); tract 527.01 (Relatively Moderate, 80.6); tract 511.02 (Relatively Moderate, 80.2)
Landslide	tract 532.08 (Relatively Low, 91.1); tract 539.02 (Relatively Low, 91.0); tract 535.12 (Relatively Low, 86.8)
Tornado	tract 534.11 (Relatively High, 79.5); tract 527.01 (Relatively Moderate, 74.1); tract 531.09 (Relatively Moderate, 72.2)
Wildfire	tract 531.09 (Relatively Low, 77.4); tract 534.28 (Relatively Low, 75.1); tract 531.10 (Relatively Low, 74.4)

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 527.01 is Census Tract 527.01). 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	1 record, 1996 (1 zone-level)	3 days; 1 with a recorded value	3 consecutive days, 1996-02-03 to 1996-02-05, zone-level		Countywide (zone-level records).	Wind chill: in event narratives only (local data needed).
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	1 record, 2025 (1 zone-level)		No crop damage reported in 1 record.		Countywide (zone-level records).	Temperature: in event narratives only (local data needed).
Drought	U.S. Drought Monitor scale (D0 to D4)	0					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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	393 records, 1958 to 2025	0.75 in to 4 in (median 1 in); 393 with a recorded value	4 in hail, 2005-03-28	Hail, 2019-05-13, \$95,000,000 property; \$0 crops (2019 dollars)	Event records naming jurisdictions in the plan: Raleigh city (52 records), Apex town (25 records), Cary town (24 records), Morrisville town (17 records), Garner town (13 records), Wake Forest town (11 records), Holly Springs town (10 records), Knightdale town (8 records), Rolesville town (7 records), Zebulon town (7 records); and 1 more jurisdiction (see the Excel file).	
Excessive Heat, Heat	heat index (in event narratives)	7 records, 1998 to 2025 (7 zone-level)	1 day to 3 days (median 2 days); 4 with a recorded value	3 consecutive days, 2025-07-26 to 2025-07-28, zone-level		Countywide (zone-level records).	Heat index: in event narratives only (local data needed).
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	13 records, 1996 to 2022 (13 zone-level)		Strongest recorded: Hurricane (Typhoon) record (NOAA's event type name), 2003-09-18, \$890,000 property; crops not reported (2003 dollars); NWS zone NCZ041	Most damaging recorded: Tropical Storm, 2022-09-30, \$1,000,000 property; \$0 crops, reported for the zone (2022 dollars)	Countywide (zone-level records).	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)	3 records, 1996 to 1998 (3 zone-level)		No damage reported in 3 records.		Countywide (zone-level records).	Ice thickness: in event narratives only (local data needed).
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	291 records, 1996 to 2025 (2 zone-level)		Flash Flood, 2016-10-08, \$65,500,000 property; \$0 crops (2016 dollars)		Event records naming jurisdictions in the plan: Raleigh city (64 records), Morrisville town (16 records), Apex town (8 records), Cary town (8 records), Garner town (6 records), Wake Forest town (6 records), Holly Springs town (5 records), Zebulon town (4 records), Knightdale town (2 records), Rolesville town (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					Physical measure: in event narratives only (local data needed).
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	41 records, 1998 to 2023		Lightning, 2018-07-28, \$0 property; \$0 crops (2018 dollars), 1 direct death, 1 direct injury	Lightning, 2010-06-02, \$1,000,000 property; \$0 crops (2010 dollars)	Event records naming jurisdictions in the plan: Cary town (6 records), Knightdale town (3 records), Raleigh city (3 records), Holly Springs town (2 records), Apex town (1 record), Morrisville town (1 record), Wake Forest town (1 record), Wendell town (1 record).	Storm Events lists lightning with damage or casualties; physical measure in event narratives only (local data needed).

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	22 records, 1997 to 2020 (22 zone-level)	35 kt (40 mph) to 55 kt (63 mph) (median 41 kt (47 mph)); 22 with a recorded value	55 kt (63 mph) measured gust, High Wind, 2009-01-07; NWS zone NCZ041	Strong Wind, 2020-10-29, \$1,500,000 property; \$0 crops, reported for the zone (2020 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	737 records, 1958 to 2026	50 kt (58 mph) to 75 kt (86 mph) (median 50 kt (58 mph)); 642 with a recorded value	75 kt (86 mph) measured gust, Thunderstorm Wind, 2014-01-11	Thunderstorm Wind, 2014-01-11, \$1,000,000 property; \$0 crops (2014 dollars)	Event records naming jurisdictions in the plan: Raleigh city (82 records), Garner town (29 records), Cary town (26 records), Holly Springs town (21 records), Apex town (18 records), Knightdale town (10 records), Rolesville town (10 records), Wake Forest town (10 records), Zebulon town (10 records), Morrisville town (7 records); and 2 more jurisdictions (see the Excel file).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	40 records, 1950 to 2024	F/EF0 to F/EF4 (median F/EF1); 40 with a recorded value	F4 tornado, 1988-11-28, 20 mi path length (whole path, pre-1996), 400 yd wide, \$250,000,000 property; crops not recorded (1988 dollars), 2 direct deaths, 105 direct injuries		Event records naming jurisdictions in the plan: Garner town (3 records), Cary town (2 records), Raleigh city (2 records), Wendell town (2 records), Zebulon town (2 records), Apex town (1 record), Holly Springs town (1 record), Rolesville town (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)	1 record, 2010 (1 zone-level)		Wildfire, 2010-03-23, \$1,000,000 property; \$0 crops (2010 dollars); NWS zone NCZ041		Countywide (zone-level records).	Acres burned: in event narratives only (local data needed).
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	66 records, 1996 to 2026 (66 zone-level)		Winter Storm, 2015-02-25, \$1,000,000 property; \$0 crops (2015 dollars); NWS zone NCZ041		Countywide (zone-level records).	Snow depth: in event narratives only (local data needed).

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".

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records whose zone 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: 26 declarations covering 21 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
2026-01-24	2026-01-21	EM-3637-NC	Emergency	Severe Winter Storm	Winter Weather	no Public Assistance recorded	new since last plan; within last 5 years	
2024-09-26	2024-09-25	EM-3617-NC	Emergency	Hurricane Helene	Hurricane (primary); also designated: Inland Flooding, Landslide	no Public Assistance recorded	in the 12 months before plan approval; within last 5 years	
2024-08-06	2024-08-05	EM-3608-NC	Emergency	Tropical Storm Debby	Hurricane	no Public Assistance recorded	in the 12 months before plan approval; within last 5 years	
2022-10-01	2022-09-28	EM-3586-NC	Emergency	Hurricane Ian	Hurricane	\$9,031.54	within last 5 years	
2020-08-02	2020-07-31	EM-3534-NC	Emergency	Hurricane Isaias	Hurricane	no Public Assistance recorded		
2020-03-25	2020-01-20	DR-4487-NC	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$949,156,411.57		
2020-03-13	2020-01-20	EM-3471-NC	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4487
2019-09-03	2019-09-01	EM-3423-NC	Emergency	Hurricane Dorian	Hurricane	no Public Assistance recorded		
2018-09-10	2018-09-07	EM-3401-NC	Emergency	Hurricane Florence	Hurricane	no Public Assistance recorded		
2016-10-10	2016-10-04	DR-4285-NC	Major disaster	Hurricane Matthew	Hurricane	\$8,394,269.51		
2016-10-07	2016-10-04	EM-3380-NC	Emergency	Hurricane Matthew	Hurricane	no Public Assistance recorded		same incident as DR-4285
2011-04-19	2011-04-16	DR-1969-NC	Major disaster	Severe Storms, Tornadoes, and Flooding	Inland Flooding; Tornado	\$5,908,711.69		
2005-09-05	2005-08-29	EM-3222-NC	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	\$986,508.73		
2003-09-18	2003-09-18	DR-1490-NC	Major disaster	Hurricane Isabel	Hurricane	\$3,200,113.11		
2002-12-12	2002-12-04	DR-1448-NC	Major disaster	Severe Ice Storm	Ice Storm	\$14,597,159.31		
2000-01-31	2000-01-24	DR-1312-NC	Major disaster	Severe Winter Storm	Winter Weather	\$1,983,269.60		
1999-09-16	1999-09-15	DR-1292-NC	Major disaster	Hurricane Floyd Major Disaster Declarations	Hurricane	\$13,747,210.85		
1999-09-15	1999-09-15	EM-3146-NC	Emergency	Hurricane Floyd Emergency Declarations	Hurricane	no Public Assistance recorded		same incident as DR-1292

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1998-03-22	1998-03-20	DR-1211-NC	Major disaster	Severe Storms Tornadoes, and Flooding	Inland Flooding; Tornado	PA not declared for this county		
1996-09-06	1996-09-05	DR-1134-NC	Major disaster	Hurricane Fran	Hurricane	no Public Assistance recorded		
1996-01-13	1996-01-06	DR-1087-NC	Major disaster	Blizzard of 96	Winter Weather	no Public Assistance recorded		
1993-03-17	1993-03-13	EM-3110-NC	Emergency	Severe Snowfall & Winter Storm	Winter Weather	no Public Assistance recorded		
1988-12-02	1988-11-28	DR-818-NC	Major disaster	Severe Storms & Tornadoes	Tornado	PA not declared for this county		
1977-08-11	1977-08-11	EM-3049-NC	Emergency	Drought	Drought	no Public Assistance recorded		
1977-03-02	1977-03-02	EM-3033-NC	Emergency	Drought & Freezing	Winter Weather (primary); also designated: Drought	no Public Assistance recorded		
1968-02-10	1968-02-10	DR-234-NC	Major disaster	Severe Ice Storm	Ice Storm	no Public Assistance recorded		

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

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1964-10-13	1964-10-13	DR-179-NC	Major disaster	Severe Storms & Flooding	Inland Flooding
1962-03-16	1962-03-16	DR-130-NC	Major disaster	Severe Storm, High Tides & Flooding	Inland Flooding (primary); also designated: Coastal Flooding
1960-09-16	1960-09-16	DR-107-NC	Major disaster	Hurricane Donna	Hurricane (primary); also designated: Inland Flooding
1958-10-01	1958-10-01	DR-87-NC	Major disaster	Hurricane & Severe Storm	Hurricane
1956-04-24	1956-04-24	DR-56-NC	Major disaster	Severe Storm	Hazard not mapped (severe storm title names no single hazard); not counted
1955-08-13	1955-08-13	DR-37-NC	Major disaster	Hurricanes	Hurricane (primary); also designated: Inland Flooding
1954-10-17	1954-10-17	DR-28-NC	Major disaster	Hurricane	Hurricane (primary); also designated: 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.

1 Fire Management declaration (1986-05-10 to 1986-05-10) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

Public Assistance filed under this county for declarations that do not list it: 48 rows, \$45,927,934.75

Sources: 2, 3

FEMA number	Declared	Title	Applicant	PA obligated
				<i>federal share obligated, nominal dollars</i>
DR-4889-NC	2025-09-11	Tropical Depression Chantal	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$1,220,942.29
DR-4827-NC	2024-09-28	Tropical Storm Helene	NC State University	\$833,842.11
DR-4827-NC	2024-09-28	Tropical Storm Helene	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$27,827,044.89

FEMA number	Declared	Title	Applicant	PA obligated <i>federal share obligated, nominal dollars</i>
DR-4827-NC	2024-09-28	Tropical Storm Helene	NC Department of Health and Human Services	\$2,528,230.20
DR-4827-NC	2024-09-28	Tropical Storm Helene	NC Administrative Office of the Courts	\$538,663.39
DR-4827-NC	2024-09-28	Tropical Storm Helene	Blue Ridge Mountain Electric Membership Corporation	\$52,727.51
DR-4617-NC	2021-09-08	Remnants of Tropical Storm Fred	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$48,481.03
DR-4568-NC	2020-10-14	Hurricane Isaias	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$279,311.50
DR-4465-NC	2019-10-04	Hurricane Dorian	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$319,409.50
DR-4465-NC	2019-10-04	Hurricane Dorian	NC Department of Health and Human Services	\$119,333.37
DR-4465-NC	2019-10-04	Hurricane Dorian	NC DOT License & Theft Bureau/DMV	\$10,238.12
DR-4412-NC	2019-01-31	Tropical Storm Michael	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$66,053.29
DR-4393-NC	2018-09-14	Hurricane Florence	The Young Men's Christian Association of the Triangle Area, Inc.	\$346,218.28
DR-4393-NC	2018-09-14	Hurricane Florence	NC United Methodist Camp & Retreat Ministries, Inc.	\$618,698.72
DR-4393-NC	2018-09-14	Hurricane Florence	NC State University	\$34,637.99
DR-4393-NC	2018-09-14	Hurricane Florence	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$2,706,092.22
DR-4393-NC	2018-09-14	Hurricane Florence	NC Department of Justice	\$56,483.67
DR-4393-NC	2018-09-14	Hurricane Florence	NC Department of Health and Human Services	\$3,282,855.86
DR-4393-NC	2018-09-14	Hurricane Florence	NC DOT License & Theft Bureau/DMV	\$136,348.14
DR-4393-NC	2018-09-14	Hurricane Florence	NC Administrative Office of the Courts	\$42,059.29
DR-4019-NC	2011-08-31	Hurricane Irene	North Carolina National Guard	\$399,903.02
DR-4019-NC	2011-08-31	Hurricane Irene	NC State University	\$445,977.89
DR-4019-NC	2011-08-31	Hurricane Irene	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$131,913.08
DR-4019-NC	2011-08-31	Hurricane Irene	NC Department of Health and Human Services	\$81,149.14
DR-4019-NC	2011-08-31	Hurricane Irene	NC DOT License & Theft Bureau/DMV	\$51,605.66
EM-3314-NC	2010-09-01	Hurricane Earl	North Carolina National Guard	\$33,103.14
EM-3314-NC	2010-09-01	Hurricane Earl	NC Department of Health and Human Services	\$2,658.59
DR-1871-NC	2010-02-02	Severe Winter Storms and Flooding	North Carolina National Guard	\$10,323.71
DR-1871-NC	2010-02-02	Severe Winter Storms and Flooding	Blue Ridge Mountain Electric Membership Corporation	\$1,536,267.06
DR-1801-NC	2008-10-08	Tropical Storm Hanna	North Carolina National Guard	\$84,356.29
DR-1608-NC	2005-10-07	Hurricane Ophelia	NC State University	\$2,928.56
DR-1608-NC	2005-10-07	Hurricane Ophelia	NC Dept. of Administraton	\$2,147.09
EM-3254-NC	2005-09-14	Hurricane Ophelia	North Carolina National Guard	\$268,072.18
EM-3254-NC	2005-09-14	Hurricane Ophelia	NC State University	\$1,579.50
DR-1553-NC	2004-09-18	Hurricane Ivan	North Carolina National Guard	\$134,339.22
DR-1553-NC	2004-09-18	Hurricane Ivan	NC State University	\$4,176.44
DR-1553-NC	2004-09-18	Hurricane Ivan	NC Department of Health and Human Services	\$12,629.42
DR-1553-NC	2004-09-18	Hurricane Ivan	NC DOT License & Theft Bureau/DMV	\$10,189.33

FEMA number	Declared	Title	Applicant	PA obligated <i>federal share obligated, nominal dollars</i>
DR-1553-NC	2004-09-18	Hurricane Ivan	Blue Ridge Mountain Electric Membership Corporation	\$578,388.92
DR-1546-NC	2004-09-10	Tropical Storm Frances	North Carolina National Guard	\$125,856.56
DR-1546-NC	2004-09-10	Tropical Storm Frances	NC State University	\$2,447.25
DR-1546-NC	2004-09-10	Tropical Storm Frances	NC Dept. of Administraton	\$9,477
DR-1546-NC	2004-09-10	Tropical Storm Frances	NC Department of Health and Human Services	\$3,171.84
DR-1546-NC	2004-09-10	Tropical Storm Frances	NC DOT License & Theft Bureau/DMV	\$10,211.83
DR-1546-NC	2004-09-10	Tropical Storm Frances	Blue Ridge Mountain Electric Membership Corporation	\$73,175.66
DR-1457-NC	2003-03-27	Ice Storm	NC State University	\$7,141.50
DR-1457-NC	2003-03-27	Ice Storm	NC Dept. of Natural and Cultural Resources (NC Department of Cultural Resources)	\$11,197.50
EM-3141-NC	1999-09-01	Hurricane Dennis	North Carolina National Guard	\$825,876

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.

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	2	1	0	1	0	0	1996 to 2026-06-30	Includes 1 Frost/Freeze record.
Drought	0	0	0	0	2	0	1996 to 2026-06-30	No Storm Events records of this type; 2 federal declared incidents (see declarations table)
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	393	8	0	30	0	0	1955 to 2026-06-30	
Heat Wave	7	5	0	5	0	0	1996 to 2026-06-30	
Hurricane	13	0	0	1	10	0	1996 to 2026-06-30	
Ice Storm	3	0	0	0	2	0	1996 to 2026-06-30	
Inland Flooding	291	20	40	110	3	0	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	41	0	0	5	0	0	1996 to 2026-06-30	
Strong Wind	759	49	36	170	0	0	1955 to 2026-06-30	Includes 7 High Wind and 15 Strong Wind records.

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Tornado	40	0	2	2	3	0	1950 to 2026-06-30	
Wildfire	1	0	0	0	0	0	1996 to 2026-06-30	
Winter Weather	66	5	0	8	5	1	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
2025-07-26	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2025 dollars)	0, 0	NWS zone NCZ041 (WAKE), zone-level	new since last plan; within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2018-07-28	Lightning		\$0 property; \$0 crops (2018 dollars)	1, 1	KNIGHTDALE		B1-c worst recorded: Lightning
2016-10-08	Flash Flood		\$65,500,000 property; \$0 crops (2016 dollars)	0, 0	PURNELL to BARHAM		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2015-02-25	Winter Storm		\$1,000,000 property; \$0 crops, reported for the zone (2015 dollars)	0, 0	NWS zone NCZ041 (WAKE), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2014-01-11	Thunderstorm Wind	75 kt (86 mph) measured gust	\$0 property; \$0 crops (2014 dollars)	0, 0	(RDU)RALEIGH-DURHAM		B1-c worst recorded: Thunderstorm Wind
2011-04-16	Tornado	EF3, 37.99 mi within this county, 300 yd wide	\$115,000,000 property; \$0 crops (2011 dollars)	4, 67	BURT to BARHAM		deaths or injuries recorded
2009-01-07	High Wind	55 kt (63 mph) measured gust	\$100,000 property; \$0 crops, reported for the zone (2009 dollars)	0, 0	NWS zone NCZ041 (WAKE), zone-level		B1-c worst recorded: High Wind and Strong Wind
2005-03-28	Hail	4 in	damage not reported	0, 0	RALEIGH		B1-c worst recorded: Hail
2003-09-18	Hurricane (Typhoon), NOAA's event type name		\$890,000 property; crops not reported, reported for the zone (2003 dollars)	0, 0	NWS zone NCZ041 (WAKE), zone-level		B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression
1996-09-05	Hurricane (Typhoon), NOAA's event type name		damage not reported	3, 0	NWS zone NCZ041 (WAKE), zone-level		deaths or injuries recorded
1996-02-03	Cold/Wind Chill		damage not reported	0, 0	NWS zone NCZ041 (WAKE), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
1988-11-28	Tornado	F4, 20 mi path length (whole path, pre-1996), 400 yd wide	\$250,000,000 property; crops not recorded (1988 dollars)	2, 105	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (1,616 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	0.684	event-days per year	about 0.684 days per year	Possible (from Storm Events: 1 of 30 years)	event-days in 1 of 30 years, 1996 to 2025 (3.33%)	13	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	13.5	event-days per year	about 13.5 days per year		event-days in 0 of 30 years, 1996 to 2025 (0%)	406	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.00111	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.111%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	4.1	events per year	about 4.1 per year	Highly likely	FEMA annualized frequency (modeled)	155.9 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	6.89	event-days per year	about 6.89 days per year	Likely (from Storm Events: 3 of 30 years)	event-days in 3 of 30 years, 1996 to 2025 (10%)	109	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.176	events per year	about 1 in 6 years	Likely	FEMA annualized frequency (modeled)	58	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	1.59	event-days per year	about 1.59 days per year	Possible (from Storm Events: 2 of 30 years)	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	108	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	4.64	event-days per year	about 4.64 days per year	Highly likely (from Storm Events: 30 of 30 years)	event-days in 30 of 30 years, 1996 to 2025 (100%)	130	1996 to 2023 (28 years)	see B1-f	
Landslide	0.438	events per year (modeled)	about 1 in 2 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	50.3	days per year with a strike	about 50.3 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	0.936	events per year	about 0.94 per year	Likely	FEMA annualized frequency (modeled)	36	1986 to 2023 (38 years)	countywide	
Tornado	0.414	events per year	about 1 in 2 years	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Wildfire	0.0000637	annual probability at a location	chance a given location in the county burns in a year: 0.00637%	Possible (from Storm Events: 1 of 30 years)	Storm Events records in 1 of 30 years, 1996 to 2025 (3.33%)	not shown	modeled	see B1-f	Descriptor from Storm Events, not NRI.
Winter Weather	6.37	event-days per year	about 6.37 days per year	Likely (from Storm Events: 21 of 30 years)	event-days in 21 of 30 years, 1996 to 2025 (70%)	121	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	176	30	5.87
Hail	2.00 in+	1996 to 2025	14	30	0.467
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	610	30	20.3
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	8	30	0.267
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	9	30	0.3
Tornado	EF0-1	1996 to 2025	17	30	0.567
Tornado	EF2-3	1996 to 2025	3	30	0.1
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

The bands show how often events of each severity were recorded in this county, to profile how severe events have been (FEMA's probability item asks for the range of intensities).

Hail smaller than 1 inch is not counted: on 2010-01-05 the National Weather Service raised its severe-hail threshold from 3/4 inch to 1 inch, so smaller reports became less common after 2009 (NWS Service Change Notice 09-52). NRI hail frequency uses a 0.75 inch threshold.

Optional: future conditions. Not a required item in the 2025 FEMA Local Mitigation Planning Policy Guide; some states ask for it. The federal Climate Mapping for Resilience and Adaptation (CMRA) site gives county exposure to future climate conditions (<https://resilience.climate.gov/>).

Supports FEMA checklist item B1-f: hazards that vary across jurisdictions

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Cold Wave	230 of 230	15.5	32.3	59.5	Relatively Moderate 13, Relatively Low 214, Very Low 3
Drought	81 of 230	67.3	76.6	92.4	Relatively Moderate 1, Relatively Low 35, Very Low 45, No Rating 149
Earthquake	230 of 230	0.6	38.5	77.5	Relatively Low 91, Very Low 139
Hail	230 of 230	4.6	79.8	94.3	Relatively High 17, Relatively Moderate 187, Relatively Low 25, Very Low 1
Heat Wave	230 of 230	1.3	57.3	88.3	Relatively High 2, Relatively Moderate 121, Relatively Low 103, Very Low 4
Hurricane	230 of 230	22.6	64.3	80.8	Relatively Moderate 4, Relatively Low 223, Very Low 3
Ice Storm	230 of 230	0.3	49.6	82.1	Relatively Moderate 14, Relatively Low 191, Very Low 25
Inland Flooding	230 of 230	0.2	56.9	98.1	Very High 1, Relatively High 41, Relatively Moderate 97, Relatively Low 74, Very Low 17
Landslide	230 of 230	25.7	64.0	91.1	Relatively Low 14, Very Low 216
Lightning	230 of 230	0.1	36.3	73.9	Relatively Moderate 31, Relatively Low 186, Very Low 13
Strong Wind	230 of 230	0.3	16.2	34.7	Relatively Low 49, Very Low 181

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	230 of 230	1.3	50.0	79.5	Relatively High 1, Relatively Moderate 89, Relatively Low 136, Very Low 4
Wildfire	230 of 230	18.5	50.5	77.4	Relatively Low 10, Very Low 220
Winter Weather	230 of 230	10.7	37.1	64.7	Relatively Moderate 26, Relatively Low 202, Very Low 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
Wake County (unincorporated area)	Unincorporated	Approved, expires 2029-11-19	FMA RL 1, SRL 2; any 6	\$64,486,003.24	0 total; 0 since its plan	Includes \$63,254,900.48 for declarations not counted as hazard incidents (DR-4487-NC, EM-3222-NC).
Apex town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 0	\$521,978.45	53 total; 1 since its plan	Includes \$123,393.63 for declarations not counted as hazard incidents (DR-4487-NC).
Cary town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 19	\$2,904,136.95	66 total; 1 since its plan	Includes \$168,782.34 for declarations not counted as hazard incidents (DR-4487-NC).
Fuquay-Varina town	Town	Approved, expires 2029-11-19	FMA RL 1, SRL 0; any 1	\$235,651.61	1 total; 0 since its plan	Includes \$6,923.57 for declarations not counted as hazard incidents (DR-4487-NC).
Garner town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 5	\$325,548.56	51 total; 4 since its plan	
Holly Springs town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 0	\$513,719.48	39 total; 1 since its plan	Includes \$36,693.48 for declarations not counted as hazard incidents (DR-4487-NC).
Knightdale town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 1	\$135,038.05	23 total; 1 since its plan	
Morrisville town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 1; any 1	\$273,619.60	41 total; 2 since its plan	Includes \$24,421.56 for declarations not counted as hazard incidents (DR-4487-NC).
Raleigh city	City	Approved, expires 2029-11-19	FMA RL 4, SRL 29; any 121	\$16,770,849.27	203 total; 9 since its plan	Includes \$1,142,973.08 for declarations not counted as hazard incidents (DR-4487-NC).
Rolesville town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 0	\$104,946.27	19 total; 0 since its plan	
Wake Forest town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 1	\$515,297.99	28 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>	
Wendell town	Town	Approved, expires 2029-11-19	FMA RL 1, SRL 1; any 1	\$225,852.42	15 total; 0 since its plan	Includes \$6,631.24 for declarations not counted as hazard incidents (DR-4487-NC).
Zebulon town	Town	Approved, expires 2029-11-19	FMA RL 0, SRL 0; any 0	\$682,679.60	23 total; 0 since its plan	Includes \$11,050.60 for declarations not counted as hazard incidents (DR-4487-NC).

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

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

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

Local data needed

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

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

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

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

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2024-11-20	Zone-level damage since plan	Public Assistance since plan <i>nominal dollars; see note</i>	Note
								<i>county-coded records, property plus crops, nominal dollars</i>	<i>property plus crops, reported for the zone</i>		
Cold Wave	\$241,671,216,164	\$81,969,486	1,128,357	\$33,876	\$43,652	\$6,651,284	under 0.0001%		\$0		
Drought	n/a	\$70,677,416	n/a	n/a	\$247,772	n/a	0.351% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$399,423,911,540	n/a	1,129,410	\$4,452,431	n/a	\$1,486,064	0.00111%				

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 2024-11-20 <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
Hail	\$241,671,231,122	\$81,969,486	1,128,357	\$12,607,523	\$34,236	\$59,206	0.00522%	\$0			
Heat Wave	\$241,671,216,164	\$81,969,486	1,128,357	\$316	\$154	\$14,721,921	under 0.0001%		\$0		
Hurricane	\$241,653,107,792	\$81,969,486	1,128,237	\$10,988,327	\$403,946	\$547,593	0.00455%				
Ice Storm	\$241,646,345,580	n/a	1,128,195	\$1,179,277	n/a	\$349,552	0.000488%				
Inland Flooding	\$241,536,796,341	\$750,219	8,961	\$220,684,212	\$60,824	\$939,570	n/a (see note)	\$53,000			NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b.
Landslide	\$4,682,943,014	n/a	21,162	\$10,354	n/a	\$196	0.000221%				
Lightning	\$241,671,231,122	n/a	1,128,357	\$140,968	n/a	\$2,000,377	under 0.0001%				
Strong Wind	\$241,671,231,122	\$81,969,486	1,128,357	\$289,510	\$361	\$571,294	0.00012%	\$227,000			
Tornado	\$241,671,231,122	\$81,969,486	1,128,357	\$9,932,083	\$2,017	\$10,087,286	0.00411%				
Wildfire	\$42,611,638,438	\$13,456,898	234,681	\$100,088	\$16	\$14,433	0.000235%				
Winter Weather	\$241,671,216,164	\$81,969,486	1,128,357	\$122,267	\$351	\$302,586	under 0.0001%		\$0	no Public Assistance recorded (1 declaration)	

Totals since 2024-11-20 (Storm Events through 2026-06-30): 77 county-coded records, 77 with a damage value recorded (including \$0), \$280,000; 11 zone-level records, 11 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: none recorded on the 1 counted declaration.

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	1,128,357
Building value (total, not at risk)	\$241,671,231,122
Agriculture value (total, not at risk)	\$81,969,486
NRI risk rating (all hazards)	Relatively High
Expected annual loss, buildings and agriculture, all hazards	\$261,334,560
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)	\$37,731,361
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)	7	Severe repetitive loss, FMA definition (44 CFR 77.2)	33
Repetitive loss, NFIP insurance definition	149	Severe repetitive loss, NFIP insurance definition	26

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	7	33	149	26	157	7	57
of which: Cary town	0	0	19	0	19	0	6
of which: Fuquay-Varina town	1	0	1	0	1	0	0
of which: Garner town	0	0	5	0	5	0	4
of which: Knightdale town	0	0	1	0	1	0	1
of which: Morrisville town	0	1	1	1	1	0	1
of which: Raleigh city	4	29	113	22	121	7	44
of which: Wake Forest town	0	0	1	0	1	0	1
of which: Wendell town	1	1	1	1	1	0	0
of which: Wake County (unincorporated area)	1	2	6	2	6	0	0
of which: Unknown (community ID Unknown in FEMA data)	0	0	1	0	1	0	0
Statewide, no county in FEMA's file	0	0	2	0	2	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>
Wake County (unincorporated area)	370368	1	2	6	2	6	0	0
Apex town	370467	0	0	0	0	0	0	0
Cary town	370238	0	0	19	0	19	0	6
Fuquay-Varina town	370239	1	0	1	0	1	0	0
Garner town	370240	0	0	5	0	5	0	4
Holly Springs town	370403	0	0	0	0	0	0	0
Knightdale town	370241	0	0	1	0	1	0	1
Morrisville town	370242	0	1	1	1	1	0	1
Raleigh city	370243	4	29	113	22	121	7	44
Rolesville town	370468	0	0	0	0	0	0	0
Wake Forest town	370244	0	0	1	0	1	0	1

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
Wendell town	370245	1	1	1	1	1	0	0
Zebulon town	370246	0	0	0	0	0	0	0

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

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

County repeat-flood properties by occupancy group

Sources: 1, 4

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	3	10	89	8	91	2	36
2 to 4 unit residential	0	5	7	2	11	3	1
other residential	0	3	18	3	18	0	10
non-residential	4	15	35	13	37	2	10
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 143 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, organized by the items of FEMA's Local Mitigation Plan Review Tool, Element B. Each section heading names the item its tables support; the plan and FEMA's review decide whether the item is met.

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

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

OpenFEMA disclaimer

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

Reuse, citation and corrections

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Cite this: Hazard Plain (2026). Wake County, NC: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; County FIPS 37183). Automated baseline. <https://hazardplain.org/nc/37183/> 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

Hazard Plain release 2026-10. As of 2026-09-30; Storm Events data through 2026-06-30. Automated baseline.