

Orange County, NC

Risk-assessment baseline packet

Unit **County area 37135** Release **2026-10** As of **2026-09-28** 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.

A starting point for the plan's risk assessment (FEMA Local Mitigation Plan Review Tool, Element B). It does not replace local data or FEMA review. Section headings say which FEMA review item each table supports; whether an item is satisfied is decided by the plan and its reviewers.

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).

Plan clock

Status	Approved, expires 2030-06-10	Plan	Eno-Haw Regional (FEMA plan 110807)
Approved	2025-06-11	Expires	2030-06-10
As of	2026-09-28	Days	1,351 days to expiry

What changed since your last plan (approved 2025-06-11)

New federal declarations	DR-4889-NC, EM-3637-NC (2 declaration rows; 2 counted incidents)	Storm Events records since approval	49 (data through 2026-06-30)
Repetitive loss now	FMA RL 10, SRL 15 (44 CFR 77.2); any definition: 58	Repeat-flood change	First release: no prior release to compare.

SOURCES: FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API); FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API); NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>; FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

Plan status for every jurisdiction listed in this county

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Orange County	County	Approved, expires 2030-06-10	Eno-Haw Regional (FEMA plan 110807)	2025-06-11	2030-06-10	1,351		member approved 2025-09-04
Carrboro town	Town	Approved, expires 2030-06-10	Eno-Haw Regional (FEMA plan 110807)	2025-06-11	2030-06-10	1,351		
Chapel Hill town	Town	Approved, expires 2030-06-10	Eno-Haw Regional (FEMA plan 110807)	2025-06-11	2030-06-10	1,351		member approved 2025-09-15
Hillsborough town	Town	Approved, expires 2030-06-10	Eno-Haw Regional (FEMA plan 110807)	2025-06-11	2030-06-10	1,351		
Mebane city	Town	Approved, expires 2030-06-10	Eno-Haw Regional (FEMA plan 110807)	2025-06-11	2030-06-10	1,351		

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
University of North Carolina- Chapel Hill	College/University	Approved, expires 2031-08-26	University of North Carolina - Eastern Campuses (FEMA plan 111827)	2026-08-27	2031-08-26	1,793		

Plan 110807 also covers 13 other participants not listed on this page (named in the XLSX file).

SOURCE: FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

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

CONTENTS

1. Plan clock, page 1	7. Supports B1-e: probability, page 13
2. What changed since your last plan (approved 2025-06-11), page 1	8. Supports B1-f: variation across the planning area, page 16
3. Supports B1-a: hazards, page 3	9. Supports B2-a and B2-b: assets and impacts, page 18
4. Supports B1-b: location, page 5	10. Supports B2-a: context, page 20
5. Supports B1-c: extent, page 5	11. Supports B2-c: repetitive loss, page 21
6. Supports B1-d: previous occurrences, page 9	12. Sources and OpenFEMA disclaimer, page 22

Supports B1-a: hazards

Hazards NRI does not cover: check locally

- 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)

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records since 1996 <i>count</i>	Evidence for an omission <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
1	Inland Flooding	Relatively Moderate	Relatively Moderate	\$33,187,068	\$11,351	\$60,432	\$33,258,852	79		
2	Tornado	Relatively Moderate	Relatively Moderate	\$2,163,762	\$767	\$3,054,848	\$5,219,377	8		
3	Hurricane	Relatively Moderate	Relatively Moderate	\$2,735,234	\$116,064	\$148,038	\$2,999,336	6		
4	Heat Wave	Relatively Moderate	Relatively Moderate	\$99	\$64	\$2,394,906	\$2,395,069	6		
5	Strong Wind	Relatively Moderate	Relatively Moderate	\$216,601	\$7,623	\$1,132,714	\$1,356,939	268		Includes 4 High Wind records and 15 Strong Wind records, event types the NRI definition of this hazard leaves out.
6	Lightning	Relatively High	Relatively High	\$144,316		\$1,027,500	\$1,171,816	10		
7	Hail	Relatively Moderate	Relatively Moderate	\$665,723	\$24,616	\$215,564	\$905,903	56		
8	Earthquake	Relatively Low	Relatively Low	\$558,561		\$184,995	\$743,556			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
9	Cold Wave	Relatively Low	Relatively Low	\$11,174	\$23,960	\$656,288	\$691,422	2		Includes 1 Frost/Freeze record, event types the NRI definition of this hazard leaves out.

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records since 1996 <i>count</i>	Evidence for an omission <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
10	Winter Weather	Relatively High	Relatively High	\$28,159	\$262	\$344,080	\$372,502	74		
11	Ice Storm	Relatively Moderate	Relatively Moderate	\$187,798		\$143,369	\$331,168	4		
12	Drought	Relatively Low	Relatively Low		\$248,719		\$248,719	0		Declared 2 times; no Storm Events record of this type.
13	Wildfire	Very Low	Very Low	\$13,553	\$13	\$2,309	\$15,875	0		No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
14	Landslide	Very Low	Very Low	\$835		\$76	\$911	0		Declared 1 time; no Storm Events record of this type. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
	Avalanche	Not Applicable	Not Applicable					0	NRI rates avalanche Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Coastal Flooding	Not Applicable	Not Applicable					0	NRI rates coastal flooding Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Tsunami	Not Applicable	Not Applicable					0	NRI rates tsunami Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
	Volcanic Activity	Not Applicable	Not Applicable					0	NRI rates volcanic activity Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)
 NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Check your state hazard mitigation plan's hazard list for this county; explain any hazard you drop.

Supports B1-b: location

Where each hazard occurs

Hazard	Location	Census tracts rated <i>rated of all tracts</i>
Avalanche	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 42
Coastal Flooding	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 42
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	19 of 42
Earthquake	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	42 of 42
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
Hurricane	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	42 of 42
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
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.	42 of 42
Landslide	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	42 of 42
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42
Tornado	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	42 of 42
Tsunami	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 42
Volcanic Activity	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 42
Wildfire	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	42 of 42
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	42 of 42

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)

Supports B1-c: extent

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

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Avalanche	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Coastal Flood, Storm Surge/ Tide	none in data (FIRM for depth)	0					Flood depth: see the FEMA Flood Insurance Rate Map.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	1, 1996 to 1996 (1 zone-level)	3 days; 1 with a recorded value	3 consecutive days, 1996-02-03 to 1996-02-05, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Wind chill: in event narratives only; local data required.
Frost/Freeze (outside NRI Cold Wave definition)	crop damage	1, 2025 to 2025 (1 zone-level)		No crop damage reported in 1 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Temperature: in event narratives only; local data required.
Drought	US Drought Monitor D-scale	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.
Earthquake	Modified Mercalli (local data)	0					No Storm Events record; local data required (e.g., USGS).
Hail	hail size (inches)	84, 1956 to 2026	0.75 in to 2.75 in (median 1 in); 84 with a recorded value	2.75 in hail, 1967-05-14	Hail, 2016-04-28, \$2,500 property; \$500 crops (2016 dollars)	Event records naming member places: Hillsborough town (15 records), Chapel Hill town (9 records), Carrboro town (2 records).	
Excessive Heat, Heat	heat index (narratives)	6, 1998 to 2025 (6 zone-level)	2 days to 3 days (median 2 days); 3 with a recorded value	3 consecutive days, 2025-07-26 to 2025-07-28, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Heat index: in event narratives only; local data required.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	6, 1996 to 2022 (6 zone-level)		Strongest recorded (records with damage, a wind speed or direct casualties first, then storm type, category and wind): Tropical Storm record, 2022-09-30, \$750,000 property; \$0 crops, reported for the zone (2022 dollars); NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Storm Events files every zone of a storm's episode under the storm's event type and category, so a Hurricane (Typhoon) record, especially an inland or remnant one, does not by itself mean hurricane-force winds here; read the damage and wind columns.
Ice Storm	Sperry-Piltz (local data)	4, 1996 to 2014 (4 zone-level)		Ice Storm, 2014-03-06, \$2,700,000 property; \$0 crops, reported for the zone (2014 dollars); NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Ice thickness: in event narratives only; local data required.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Flash Flood, Flood, Lakeshore Flood	damage and flood days (FIRM for depth)	79, 1996 to 2025 (1 zone-level)		Flood, 2018-09-17, \$26,400,000 property; \$5,000,000 crops (2018 dollars)		Event records naming member places: Chapel Hill town (28 records), Hillsborough town (6 records), Carrboro town (4 records). Zone-level records (1) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage can be \$0 or blank even for a major flood, so the worst record here may not be the worst flood; compare FEMA Public Assistance by declaration in B1-d.
Debris Flow	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	10, 1997 to 2022		Lightning, 2006-06-11, damage not reported, 1 direct death	Lightning, 2008-12-11, \$1,500,000 property; \$0 crops (2008 dollars)	Event records naming member places: Carrboro town (2 records), Chapel Hill town (2 records), Hillsborough town (2 records).	Storm Events lists lightning with damage or casualties; physical measure in event narratives only; local data required.
High Wind and Strong Wind (outside NRI Strong Wind definition)	wind speed (kt and mph)	19, 1998 to 2020 (19 zone-level)	32 kt (37 mph) to 50 kt (58 mph) (median 40 kt (46 mph)); 19 with a recorded value	50 kt (58 mph) estimated gust, High Wind, 2010-02-10; same speed and measurement basis also recorded on 2004-03-07; NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties	Strong Wind, 2020-10-29, \$1,000,000 property; \$0 crops, reported for the zone (2020 dollars)	Zone-level records: applies countywide; national data do not locate these events within the county.	
Thunderstorm Wind	wind speed (kt and mph)	284, 1975 to 2026	50 kt (58 mph) to 69 kt (79 mph) (median 50 kt (58 mph)); 245 with a recorded value	69 kt (79 mph), measurement type not recorded, Thunderstorm Wind, 1986-04-26	Thunderstorm Wind, 2020-06-28, \$50,000 property; \$0 crops (2020 dollars)	Event records naming member places: Chapel Hill town (40 records), Hillsborough town (31 records), Carrboro town (3 records).	

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Tornado	Enhanced Fujita (F before Feb 2007)	12, 1975 to 2025	F/EF0 to F/EF3 (median F/EF1); 12 with a recorded value	F3 tornado, 1992-11-23, 5.5 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 1,200 yd wide, \$250,000 property; crops not recorded (1992 dollars), 2 direct deaths, 10 direct injuries	Tornado, 2019-04-19, \$2,000,000 property; \$0 crops (2019 dollars)	Event records naming member places: Carrboro town (2 records).	From 1996 on, tornado records are per-county segments and length is the path length within this county (NWS Instruction 10-1605); records before 1996 may give the whole path length, including the path outside this county, and before 1996 a tornado is listed once, under the county where it began, with the whole path's rating; counties farther along the path may not list it. Length is not used to rank tornadoes.
Tsunami	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Volcanic Ash, Volcanic Ashfall	Volcanic Explosivity Index (local data)	0					Physical measure: in event narratives only; local data required.
Wildfire	acres burned (local data)	0					Acres burned: in event narratives only; local data required.
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall local)	74, 1996 to 2026 (74 zone- level)		Winter Storm, 2015-02-25, \$1,000,000 property; \$0 crops, reported for the zone (2015 dollars); NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Snow depth: in event narratives only; local data required.

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

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

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Supports B1-d: previous occurrences

Declaration rows

26

Counted incidents

21

Federal disaster declarations for this county

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	none found	new since last plan; within last 5 years	
2025-09-11	2025-07-06	DR-4889-NC	Major disaster	TROPICAL DEPRESSION CHANTAL	Hurricane	\$8,747,913.26	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	none found	during plan review, check whether your last plan included it; within last 5 years	
2024-08-06	2024-08-05	EM-3608-NC	Emergency	TROPICAL STORM DEBBY	Hurricane	none found	during plan review, check whether your last plan included it; within last 5 years	
2022-10-01	2022-09-28	EM-3586-NC	Emergency	HURRICANE IAN	Hurricane	none found	within last 5 years	
2020-08-02	2020-07-31	EM-3534-NC	Emergency	HURRICANE ISAIAS	Hurricane	none found		
2020-03-25	2020-01-20	DR-4487-NC	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$150,279,487.39		
2020-03-13	2020-01-20	EM-3471-NC	Emergency	COVID-19	Non-natural, not counted	none found		same incident as DR-4487
2019-09-03	2019-09-01	EM-3423-NC	Emergency	HURRICANE DORIAN	Hurricane	none found		
2019-01-31	2018-10-10	DR-4412-NC	Major disaster	TROPICAL STORM MICHAEL	Hurricane	\$128,016.09		
2018-09-14	2018-09-07	DR-4393-NC	Major disaster	HURRICANE FLORENCE	Hurricane	\$1,219,152.36		
2018-09-10	2018-09-07	EM-3401-NC	Emergency	HURRICANE FLORENCE	Hurricane	none found		same incident as DR-4393
2016-10-07	2016-10-04	EM-3380-NC	Emergency	HURRICANE MATTHEW	Hurricane	none found		
2014-03-31	2014-03-06	DR-4167-NC	Major disaster	SEVERE WINTER STORM	Ice Storm	\$966,574.35		
2005-09-05	2005-08-29	EM-3222-NC	Emergency	HURRICANE KATRINA EVACUATION	Hurricane: evacuation support, not a local hazard event; not counted	none found		
2003-09-18	2003-09-18	DR-1490-NC	Major disaster	HURRICANE ISABEL	Hurricane	\$266,484.37		
2003-03-27	2003-02-27	DR-1457-NC	Major disaster	ICE STORM	Ice Storm	\$940.85		
2002-12-12	2002-12-04	DR-1448-NC	Major disaster	SEVERE ICE STORM	Ice Storm	\$1,723,974.59		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2000-01-31	2000-01-24	DR-1312-NC	Major disaster	SEVERE WINTER STORM	Winter Weather	\$195,871.31		
1999-09-16	1999-09-15	DR-1292-NC	Major disaster	HURRICANE FLOYD MAJOR DISASTER DECLARATIONS	Hurricane	\$199,962.27		
1999-09-15	1999-09-15	EM-3146-NC	Emergency	HURRICANE FLOYD EMERGENCY DECLARATIONS	Hurricane	none found		same incident as DR-1292
1996-09-06	1996-09-05	DR-1134-NC	Major disaster	HURRICANE FRAN	Hurricane	none found		
1996-01-13	1996-01-06	DR-1087-NC	Major disaster	BLIZZARD OF 96	Winter Weather	none found		
1993-03-17	1993-03-13	EM-3110-NC	Emergency	SEVERE SNOWFALL & WINTER STORM	Winter Weather	none found		
1977-08-11	1977-08-11	EM-3049-NC	Emergency	DROUGHT	Drought	none found		
1977-03-02	1977-03-02	EM-3033-NC	Emergency	DROUGHT & FREEZING	Winter Weather (primary); also designated: Drought	none found		

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.

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

SOURCES

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Statewide declarations

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	Flags	Notes
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. Listed on every county page in the state; not counted with county rows.

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.

SOURCE

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

Public Assistance filed under this county for declarations that do not list it: 1 row, \$0

FEMA number	Declared	Title	Applicant	PA obligated <i>federal share obligated, nominal dollars</i>
DR-1801-NC	2008-10-08	TROPICAL STORM HANNA	PIEDMONT ELECTRIC MEMBERSHIP	\$0

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.

SOURCES

FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

Previous occurrences by hazard, with explicit no-event rows

Hazard	Storm Events records <i>full period</i>	Since plan approval records	During plan review records	Last 5 years records	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Avalanche	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Coastal Flooding	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Cold Wave	2	1	0	1	0	0	1996 to 2026-06-30	Includes 1 Frost/Freeze record, event types the NRI definition of this hazard leaves out.
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		No Storm Events record; local data required (e.g., USGS).
Hail	84	2	0	4	0	0	1955 to 2026-06-30	
Heat Wave	6	5	0	5	0	0	1996 to 2026-06-30	
Hurricane	6	0	0	1	12	1	1996 to 2026-06-30	
Ice Storm	4	0	0	0	3	0	1996 to 2026-06-30	
Inland Flooding	79	20	7	43	1	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	10	0	0	1	0	0	1996 to 2026-06-30	
Strong Wind	303	18	6	61	0	0	1955 to 2026-06-30	Includes 4 High Wind records and 15 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	12	1	0	2	0	0	1950 to 2026-06-30	
Tsunami	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events

Hazard	Storm Events records <i>full period</i>	Since plan approval <i>records</i>	During plan review <i>records</i>	Last 5 years <i>records</i>	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Volcanic Activity	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
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	74	2	1	8	5	1	1996 to 2026-06-30	

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Notable Storm Events records

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Direct deaths, injuries <i>indirect not counted</i>	Location	Flags	Why listed
2025-07-26	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2025 dollars)	0, 0	NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2025-07-06	Flash Flood		\$20,000 property; \$0 crops (2025 dollars)	1, 0	MC DADE to SCHLEY	new since last plan; within last 5 years	deaths or injuries recorded
2022-09-30	Tropical Storm		\$750,000 property; \$0 crops, reported for the zone (2022 dollars)	0, 0	NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties	within last 5 years	B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression
2020-06-28	Thunderstorm Wind	50 kt (58 mph) estimated gust	\$50,000 property; \$0 crops (2020 dollars)	1, 0	CHAPEL HILL WLLMS AR		deaths or injuries recorded
2018-09-17	Flood		\$26,400,000 property; \$5,000,000 crops (2018 dollars)	0, 0	TEER to CHAPEL HILL		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 NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2010-02-10	High Wind	50 kt (58 mph) estimated gust	\$1,000 property; \$0 crops, reported for the zone (2010 dollars)	0, 0	NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
2006-06-11	Lightning		damage not reported	1, 0	HILLSBOROUGH		B1-c worst recorded: Lightning
1996-02-03	Cold/Wind Chill		damage not reported	0, 0	NWS zone NCZ024 (ORANGE), zone-level: may include parts of neighboring counties		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill

				Direct deaths, injuries <i>indirect not counted</i>			
Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>		Location	Flags	Why listed
1992-11-23	Tornado	F3, 5.5 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 1,200 yd wide	\$250,000 property; crops not recorded (1992 dollars)	2, 10	location not recorded		deaths or injuries recorded
1986-04-26	Thunderstorm Wind	69 kt (79 mph), measurement type not recorded	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Thunderstorm Wind
1967-05-14	Hail	2.75 in	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Hail

The full list is in the XLSX file, sheet "B1-d Storm Events history" (580 rows).

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

State-declared emergencies are not in federal data. Add them from your state emergency management agency.

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

Supports B1-e: probability

Probability: FEMA annualized frequency and descriptor per hazard

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
Avalanche		events per year					1994 to 2023 (30 years)	see B1-f	Not Applicable in NRI for this county; no descriptor.
Coastal Flooding		events per year at a location (modeled)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Cold Wave	0.684	event-days per year	about 0.684 days per year	Possible	event-days in 1 of 30 years, 1996 to 2025 (3.33%)	13	2005-11-12 to 2024-11-12 (19 years)	countywide	Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.
Drought	15.5	event-days per year	about 15.5 days per year		event-days in 0 of 30 years, 1996 to 2025 (0%)	462	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No recorded event-days, 1996 to 2025; descriptor not assigned

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
Earthquake	0.00118	annual probability at a location	chance a given location in the county has at least minor- damage shaking in a year: 0.118%			not shown	modeled	see B1-f	Descriptor not assigned: the NRI value is the chance at a location in the county, not how often the hazard affects the county, and Storm Events does not record earthquakes.
Hail	4.43	events per year	about 4.43 per year	Highly likely	FEMA annualized frequency (modeled)	168.5 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	4.84	event-days per year	about 4.84 days per year	Possible	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	78	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 4.84 heat wave event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 2 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.
Hurricane	0.106	events per year	about 1 in 9 years	Likely	FEMA annualized frequency (modeled)	26	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are counted separately in B1-d and need not match.
Ice Storm	1.8	event-days per year	about 1.8 days per year	Likely	event-days in 3 of 30 years, 1996 to 2025 (10%)	121	1946-12-31 to 2014-02-12 (67 years)	countywide	NRI gives about 1.8 ice storm event-days a year here (its annualized frequency over 67 years; not its event count divided by the years), but Storm Events has a record in only 3 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.
Inland Flooding	1.29	event-days per year	about 1.29 days per year	Likely	event-days in 23 of 30 years, 1996 to 2025 (76.7%)	36	1996 to 2023 (28 years)	see B1-f	
Landslide	0.174	events per year (modeled)	about 1 in 6 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	47.1	days per year with a strike	about 47.1 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	1.57	events per year	about 1.57 per year	Highly likely	FEMA annualized frequency (modeled)	60	1986 to 2023 (38 years)	countywide	

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area- weighted, so can be fractional)	NRI period	Location	Note
Tornado	0.154	events per year	about 1 in 7 years	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Volcanic Activity		annual probability				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Wildfire	0.000102	annual probability at a location	chance a given location in the county burns in a year: 0.0102%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No Storm Events record of this hazard, 1996 to 2025; descriptor not assigned (the NRI value is the chance at a location in the county, not how often the hazard affects the county)
Winter Weather	7.42	event-days per year	about 7.42 days per year	Likely	event-days in 22 of 30 years, 1996 to 2025 (73.3%)	141	2005-11-12 to 2024-11-12 (19 years)	countywide	

FEMA annualized frequency (modeled) comes from the National Risk Index v1.20 (December 2025). It is not recorded events divided by years, and what it measures depends on the hazard. For most hazards it estimates how often the hazard affects this county each year: it counts events or event-days (drought, heat wave, cold wave, winter weather, ice storm and inland flooding are in days per year; lightning is the number of days per year with a recorded cloud-to-ground strike, from the NOAA Storm Prediction Center daily lightning climatology); it may count events in the surrounding area (hail, strong wind, tornado, hurricane and ice storm use a 49 km grid and buffers) and is averaged over the county's area; and some hazards use a minimum value for places with no recorded event. Earthquake, wildfire and coastal flooding are different: FEMA computes them for each census block and averages them over the county, so the value is the chance (for coastal flooding, the modeled number of floods per year) at a location in the county, which is lower than the chance that the hazard strikes somewhere in the county. Earthquake is the chance of at least minor-damage shaking (U.S. Geological Survey model); wildfire is the chance that a location burns in a large fire (U.S. Forest Service burn probability); coastal flooding comes from FEMA flood zones and NOAA high-tide flooding, so it can be above 1 where high-tide flooding is frequent. Tsunami is the value at the county's most exposed location, from recorded events and modeled return periods. For these four hazards the packet gives no "1 in N years" and takes the descriptor from Storm Events (none for earthquake) unless the value is 1 or more a year. Landslide is a U.S. Geological Survey modeled county rate spread by slope susceptibility. Volcanic activity is the chance that a volcano affecting the county erupts in a year. Drought counts only extreme and exceptional drought (D3 and D4). Source: FEMA, National Risk Index Technical Documentation v1.20, sections 5.2.2 (Table 5), 5.2.3, 7.4, 10.4, 16.5, 17.1, 17.3.1, 17.5, 20.3.1, 21.4, 22.4 and 6 to 23.

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Descriptor scale used in this packet (defined per unit)

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

Unit	Descriptor	Definition
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

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Intensity bands: historical frequency (Storm Events)

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	28	30	0.933
Hail	2.00 in+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	236	30	7.87
Strong Wind (Thunderstorm Wind records)	65 kt+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	unmeasured or below 50 kt	1996 to 2025	6	30	0.2
Tornado	EF0-1	1996 to 2025	7	30	0.233
Tornado	EF2-3	1996 to 2025	1	30	0.0333
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

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.

SOURCE
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

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.

Supports B1-f: variation across the planning area

Range of census tract risk within the county

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Avalanche	0 of 42				Not Applicable 42	

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Coastal Flooding	0 of 42				Not Applicable 42	
Cold Wave	42 of 42	19.9	27.1	41.7	Relatively Low 42	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Drought	19 of 42	73.0	84.3	94.9	Relatively Moderate 4, Relatively Low 9, Very Low 6, No Rating 23	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally.
Earthquake	42 of 42	14.8	31.2	60.7	Relatively Low 11, Very Low 31	
Hail	42 of 42	46.8	67.6	84.0	Relatively Moderate 15, Relatively Low 27	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Heat Wave	42 of 42	20.5	58.5	84.7	Relatively High 1, Relatively Moderate 24, Relatively Low 17	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Hurricane	42 of 42	54.9	71.5	84.9	Relatively Moderate 2, Relatively Low 40	
Ice Storm	42 of 42	29.3	59.2	80.8	Relatively Moderate 8, Relatively Low 32, Very Low 2	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Inland Flooding	42 of 42	4.3	51.0	95.1	Relatively High 6, Relatively Moderate 18, Relatively Low 14, Very Low 4	
Landslide	42 of 42	14.6	57.3	83.6	Relatively Low 1, Very Low 41	
Lightning	42 of 42	37.1	74.0	94.2	Relatively High 15, Relatively Moderate 24, Relatively Low 3	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Strong Wind	42 of 42	28.0	65.1	83.0	Relatively High 1, Relatively Moderate 29, Relatively Low 12	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Tornado	42 of 42	38.1	59.9	80.3	Relatively High 3, Relatively Moderate 27, Relatively Low 12	
Tsunami	0 of 42				Not Applicable 42	
Volcanic Activity	0 of 42				Not Applicable 42	
Wildfire	42 of 42	29.7	51.5	69.8	Relatively Low 2, Very Low 40	
Winter Weather	42 of 42	47.4	76.3	92.3	Relatively High 17, Relatively Moderate 24, Relatively Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.

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.

SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)

Per-member block (Starter, confirm locally)

Member	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance matched <i>federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since the member's plan</i>	Notes
Orange County	County	Approved, expires 2030-06-10	FMA RL 1, SRL 1; any 3	\$2,815,360.43	0; 0	Includes \$1,765,539.49 for declarations not counted as hazard incidents (DR-4487-NC).
Carrboro town	Town	Approved, expires 2030-06-10	FMA RL 0, SRL 1; any 5	\$469,579.78	13; 1	
Chapel Hill town	Town	Approved, expires 2030-06-10	FMA RL 9, SRL 13; any 51	\$2,895,466.79	79; 9	Whole community, including the part in Durham County; in-county portion (county table): FMA RL 9, FMA SRL 13, NFIP RL 50, NFIP SRL 12, any category 50. Includes \$72,509.25 for declarations not counted as hazard incidents (DR-4487-NC).
Hillsborough town	Town	Approved, expires 2030-06-10	FMA RL 0, SRL 0; any 0	\$1,502,048.72	54; 1	Includes \$9,863.01 for declarations not counted as hazard incidents (DR-4487-NC).
Mebane city	Town	Approved, expires 2030-06-10	FMA RL 0, SRL 0; any 0	none found	0; 0	

Member 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 member row, while the county table counts only its part in this county.

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

SOURCES

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Supports B2-a and B2-b: assets and impacts

Local data required

County-level starter. The plan must describe impacts for each participant and its own assets.

- Critical facilities and lifelines per hazard
- A problem statement per participant 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

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2025-06-11 <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
Avalanche											Not Applicable in NRI for this county
Coastal Flooding											Not Applicable in NRI for this county
Cold Wave	\$30,307,887,227	\$48,552,110	148,579	\$11,174	\$23,960	\$656,288	under 0.0001%		\$0		
Drought		\$30,140,829			\$248,719		0.825% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$51,330,531,852		148,696	\$558,561		\$184,995	0.00109%				
Hail	\$30,307,887,227	\$48,552,110	148,579	\$665,723	\$24,616	\$215,564	0.0022%	\$0			
Heat Wave	\$30,307,887,227	\$48,552,110	148,579	\$99	\$64	\$2,394,906	under 0.0001%		\$0		
Hurricane	\$30,307,887,227	\$48,552,110	148,579	\$2,735,234	\$116,064	\$148,038	0.00902%			\$8,747,913.26	
Ice Storm	\$30,307,887,227		148,579	\$187,798		\$143,369	0.00062%				
Inland Flooding	\$30,291,362,177	\$611,393	1,592	\$33,187,068	\$11,351	\$60,432	n/a (see note)	\$30,704,000			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. EAL as % of exposure: n/a.
Landslide	\$949,847,133		4,905	\$835		\$76	under 0.0001%				
Lightning	\$30,307,887,227		148,579	\$144,316		\$1,027,500	0.000476%				
Strong Wind	\$30,307,887,227	\$48,552,110	148,579	\$216,601	\$7,623	\$1,132,714	0.000715%	\$66,000			
Tornado	\$30,307,887,227	\$48,552,110	148,579	\$2,163,762	\$767	\$3,054,848	0.00714%	\$20,000			
Tsunami											Not Applicable in NRI for this county
Volcanic Activity											Not Applicable in NRI for this county
Wildfire	\$7,208,974,613	\$10,068,310	36,160	\$13,553	\$13	\$2,309	0.000188%				

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2025-06-11 <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
Winter Weather	\$30,307,887,227	\$48,552,110	148,579	\$28,159	\$262	\$344,080	under 0.0001%		\$0	none found (1 declaration)	

Totals since 2025-06-11 (Storm Events through 2026-06-30): 41 county-coded records, 41 with a damage value recorded (including \$0), \$30,790,000; 8 zone-level records, 8 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance on counted declarations \$8,747,913.26 (2 declarations, 1 with PA).

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

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 must not be added up; the unit total counts each declaration once.

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

SOURCES
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Supports B2-a: context

County context

Measure	Value
Population	148,579
Building value (total, not at risk)	\$30,307,887,227
Agriculture value (total, not at risk)	\$48,552,110
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$40,346,325
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)	\$9,365,120
Social vulnerability rating	Very Low
Community resilience rating	Very High
NRI version	December 2025

FEMA's all-hazard expected annual loss total adds buildings, agriculture and population equivalence; the two parts are shown separately so the property figure is not read as including the statistical value of life.

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, 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)

Supports B2-c: repetitive loss

Repetitive loss in this county, both definitions

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	10	Severe repetitive loss, FMA definition (44 CFR 77.2)	15
Repetitive loss, NFIP insurance definition	57	Severe repetitive loss, NFIP insurance definition	14

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

SOURCES

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Repeat-flood properties: county and state-level rows

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	10	15	57	14	58	0	42
CHAPEL HILL, TOWN OF	9	13	50	12	50	0	38
CARRBORO, TOWN OF	0	1	5	1	5	0	3
ORANGE COUNTY *	1	1	2	1	3	0	1
State level, not in this county: county not reported	0	0	2	0	2	0	0

SOURCES

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Repeat-flood properties by plan member (NFIP community)

Member	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>	Note
Orange County	370342	1	1	2	1	3	0	1	
Carrboro town	370275	0	1	5	1	5	0	3	
Chapel Hill town	370180	9	13	51	12	51	0	38	Whole community, including the part in Durham County; in-county portion (county table): FMA RL 9, FMA SRL 13, NFIP RL 50, NFIP SRL 12, any category 50.
Hillsborough town	370343	0	0	0	0	0	0	0	
Mebane city	370390	0	0	0	0	0	0	0	

Per-member types: XLSX sheet 'B2-c Members'.

Member 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 member row, while the county table counts only its part in this county.

SOURCES

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

County repeat-flood properties by occupancy group

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	1	6	33	6	34	0	20
2 to 4 unit residential	0	0	1	0	1	0	0
other residential	8	7	14	7	14	0	14
non-residential	1	2	9	1	9	0	8
not reported	0	0	0	0	0	0	0

Institutional properties cannot be separated in this data: FEMA's occupancy groups have no institutional class, so they fall in non-residential or other residential in the table by occupancy group.

SOURCES

FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

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; OpenFEMA's fmaRI field description omits the Increased Cost of Compliance clause of 44 CFR 77.2(i). NFIP repetitive loss (FEMA insurance definition, nfipRI) is 2 or more claims over \$1,000 in 10 years and can drop to false when a property is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured.

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

Counts are aggregates of FEMA's public NFIP Multiple Loss Properties file (as of 2026-08-02). No property is identified. County assignment is FEMA's geocode.

Counts may differ from your state NFIP coordinator's list, which is the source the Handbook names.

In this county 1 property is FMA repetitive loss but not NFIP repetitive loss, and 48 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

Every table above lists its own sources. The full list, for the plan's bibliography (FEMA review item A4-a):

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <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 2026-09-28, 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 2026-09-28, <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 2026-09-28, <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 2026-09-28, 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

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).

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.

Reuse, citation and corrections

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

Cite this: Hazard Plain (2026). Orange County, NC: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-28; County area 37135). Preview: automated baseline. 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: to be added

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File hazard-plain_2026-10_NC_37135. Preview: automated baseline.