

Bristol County, RI

Risk-assessment baseline packet

County FIPS: 44001 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: No county-level plan row in FEMA data.

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$5,567,118 a year), Hurricane (\$1,146,591) and Coastal Flooding (\$1,108,954).

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; 44001 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.

CONTENTS

1. Summary and terms used, page 1
2. Plan clock, page 2
3. What changed since your last plan, page 2
4. B1-a: hazard identification, page 3
5. B1-b: hazard location, page 4
6. B1-c: hazard extent, page 5
7. B1-d: previous occurrences, page 7
8. B1-e: probability of future events, page 11
9. B1-f: hazards that vary across jurisdictions, page 14
10. B2-a and B2-b: vulnerability and potential impacts, page 16
11. B2-a: vulnerability (county context), page 17
12. B2-c: repetitive loss properties, page 18
13. Sources, what the plan adds, disclaimer and citation, page 19

Plan clock

No county-level plan row in FEMA data

What changed since your last plan

Not available. No county-level plan row in FEMA data, so there is no approval date to count from.

Sources: 1, 2, 4, 6 (numbered list at the end)

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>
Barrington town	Town	Approved, expires 2028-02-07	Town of Barrington Rhode Island Hazard Mitigation & Flood Management Plan 2022 (FEMA plan 108462)	2023-02-08	2028-02-07	495
Bristol town	Town	Approved, expires 2029-04-22	2024 Bristol Hazard Mitigation Plan and Flood Management Plan Update (FEMA plan 109586)	2024-04-23	2029-04-22	935
Warren town	Town	Approved, expires 2027-09-14	Town of Warren Rhode Island Hazard Mitigation & Floodplain Management Plan 2022 (FEMA plan 108288)	2022-09-15	2027-09-14	349

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

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

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

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

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Relatively Low	Relatively Low	\$5,540,352	under \$1	\$26,766	\$5,567,118	22	
2	Hurricane	Relatively Low	Relatively Low	\$1,101,741	\$10,972	\$33,878	\$1,146,591	3	
3	Coastal Flooding	Relatively Moderate	Relatively Moderate	\$1,104,283	n/a	\$4,671	\$1,108,954	8	
4	Lightning	Relatively Moderate	Relatively Moderate	\$8,619	n/a	\$489,286	\$497,904	7	
5	Earthquake	Very Low	Relatively Low	\$311,129	n/a	\$72,800	\$383,929		Storm Events does not record earthquakes.
6	Cold Wave	Very Low	Relatively Low	\$105	\$89	\$163,451	\$163,645	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
7	Heat Wave	Very Low	Very Low	under \$1	\$102	\$161,351	\$161,453	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
8	Strong Wind	Very Low	Relatively Low	\$60,546	under \$1	\$95,175	\$155,721	97	Includes 27 High Wind and 52 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
9	Tornado	Very Low	Very Low	\$115,366	\$7	\$25,941	\$141,314	1	
10	Ice Storm	Very Low	Very Low	\$21,420	n/a	\$2,958	\$24,378	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
11	Winter Weather	Very Low	Relatively Low	\$4,596	under \$1	\$17,553	\$22,150	66	
12	Drought	Very Low	Very Low	n/a	\$2,221	n/a	\$2,221	4	
13	Hail	Very Low	Very Low	\$1,285	\$4	\$426	\$1,715	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
14	Wildfire	Very Low	Very Low	\$1,541	under \$1	\$154	\$1,695	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
15	Landslide	Very Low	Very Low	\$3	n/a	\$4	\$7	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Tsunami	Insufficient Data	Insufficient Data	n/a	n/a	n/a	n/a	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

Local data needed: state and local wildfire, landslide and tsunami records (Storm Events records these hazards only in part).

Not applicable to this county per NRI, with no federal declaration and no Storm Events record since 1996: avalanche 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.

Coastal Flooding and 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 309.02 (Relatively Low, 64.4); tract 305 (Relatively Low, 61.0); tract 308 (Relatively Low, 56.2)
Hurricane	tract 309.02 (Relatively Moderate, 84.1); tract 308 (Relatively Moderate, 81.2); tract 309.01 (Relatively Moderate, 79.5)
Landslide	tract 308 (Very Low, 52.3); tract 309.02 (Very Low, 45.6); tract 306.01 (Very Low, 31.7)
Tornado	tract 309.02 (Relatively Low, 35.3); tract 308 (Relatively Low, 30.5); tract 309.01 (Very Low, 28.1)
Tsunami	no tract has a National Risk Index rating for this hazard
Wildfire	tract 309.02 (Very Low, 58.0); tract 309.01 (Very Low, 48.4); tract 306.01 (Very Low, 47.2)

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 309.02 is Census Tract 309.02). 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
Coastal Flood, Storm Surge/ Tide	none in data (flood depth: FIRM)	8 records, 1997 to 2022 (8 zone-level)		Coastal Flood, 2012-10-29, \$220,000 property; \$0 crops (2012 dollars); NWS zone RIZ005		Countywide (zone-level records).	Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	0					
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					
Drought	U.S. Drought Monitor scale (D0 to D4)	4 records, 2012 to 2016 (4 zone-level)	13 days to 79 days (median 46 days); 2 with a recorded value	79 days (about 2.6 months), 2016-09-13 to 2016-11-30, a run of 3 consecutive Storm Events drought records, zone- level		Countywide (zone-level records).	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	6 records, 1997 to 2024	0.75 in to 1.5 in (median 0.94 in); 6 with a recorded value	1.5 in hail, 1997-06-22		Event records naming jurisdictions in the plan: Barrington town (2 records), Bristol town (1 record).	
Excessive Heat, Heat	heat index (in event narratives)	0					
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	3 records, 2011 to 2021 (3 zone-level)		Strongest recorded: Tropical Storm record, 2021-08-22, \$200,000 property; \$0 crops (2021 dollars); NWS zone RIZ005		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)	0					
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	22 records, 1996 to 2025 (2 zone-level)		Flood, 2010-03-30, \$5,910,000 property; \$0 crops (2010 dollars)		Event records naming jurisdictions in the plan: Bristol town (13 records), Warren town (5 records). 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.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	7 records, 1997 to 2025		Lightning, 2008-06-24, \$0 property; \$0 crops (2008 dollars), 1 direct death	Lightning, 1997-06-22, \$50,000 property; crops not reported (1997 dollars)	Event records naming jurisdictions in the plan: Bristol town (2 records).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	79 records, 1996 to 2025 (79 zone-level)	35 kt (40 mph) to 63 kt (72 mph) (median 50 kt (58 mph)); 44 with a recorded value	63 kt (72 mph) estimated gust, High Wind, 2012-10-29; NWS zone RIZ005	High Wind, 2003-11-13, \$50,000 property; crops not reported (zone total, 2003 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	20 records, 1983 to 2025	40 kt (46 mph) to 70 kt (81 mph) (median 50 kt (58 mph)); 18 with a recorded value	70 kt (81 mph), measurement type not recorded, Thunderstorm Wind, 1997-06-22		Event records naming jurisdictions in the plan: Bristol town (7 records), Barrington town (6 records), Warren town (3 records).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	2 records, 1972 to 2008	F/EF0 to F/EF1 (median between F/EF0 and F/EF1); 2 with a recorded value	EF1 tornado, 2008-07-23, 2.97 mi within this county, 40 yd wide, \$45,000 property; \$0 crops (2008 dollars)		Event records naming jurisdictions in the plan: Barrington 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).
Tsunami	none (count and damage only)	0					
Wildfire	acres burned (local data)	0					
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)		Heavy Snow, 1997-04-01, \$100,000 property; crops not reported (1997 dollars); NWS zone RIZ005		Countywide (zone-level records).	

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

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

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 20 declarations covering 14 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

No county-level plan row in FEMA data, so there is no approval date to count from.

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
2022-05-12	2022-01-28	DR-4653-RI	Major disaster	Severe Winter Storm and Snowstorm	Winter Weather	\$290,146.94	within last 5 years	
2021-08-21	2021-08-20	EM-3563-RI	Emergency	Hurricane Henri	Hurricane	no Public Assistance recorded		
2020-03-30	2020-01-20	DR-4505-RI	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$6,219,815		
2020-03-13	2020-01-20	EM-3440-RI	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4505
2015-04-03	2015-01-26	DR-4212-RI	Major disaster	Severe Winter Storm and Snowstorm	Winter Weather	\$178,629.24		
2013-03-22	2013-02-08	DR-4107-RI	Major disaster	Severe Winter Storm and Snowstorm	Winter Weather	\$301,249.60		
2012-11-03	2012-10-26	DR-4089-RI	Major disaster	Hurricane Sandy	Hurricane	\$373,694.17		
2012-10-29	2012-10-26	EM-3355-RI	Emergency	Hurricane Sandy	Hurricane	no Public Assistance recorded		same incident as DR-4089
2011-09-03	2011-08-27	DR-4027-RI	Major disaster	Tropical Storm Irene	Hurricane	\$644,336.56		
2011-08-27	2011-08-26	EM-3334-RI	Emergency	Hurricane Irene	Hurricane	no Public Assistance recorded		same incident as DR-4027
2010-03-30	2010-03-12	EM-3311-RI	Emergency	Severe Storms and Flooding	Inland Flooding	no Public Assistance recorded		same incident as DR-1894
2010-03-29	2010-03-12	DR-1894-RI	Major disaster	Severe Storms and Flooding	Inland Flooding	\$420,728.58		
2005-09-19	2005-08-29	EM-3255-RI	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
2005-02-17	2005-01-22	EM-3203-RI	Emergency	Record Snow	Winter Weather	\$173,141.11		
1996-01-24	1996-01-07	DR-1091-RI	Major disaster	Blizzard of 96 (Severe Snow Storm)	Winter Weather	no Public Assistance recorded		
1993-03-16	1993-03-13	EM-3102-RI	Emergency	Blizzards, High Winds & Record Snowfall	Winter Weather	no Public Assistance recorded		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1991-08-26	1991-08-19	DR-913-RI	Major disaster	Hurricane Bob	Hurricane	no Public Assistance recorded		
1985-10-15	1985-09-27	DR-748-RI	Major disaster	Hurricane Gloria	Hurricane	no Public Assistance recorded		
1978-02-16	1978-02-16	DR-548-RI	Major disaster	Snow & Ice	Winter Weather	PA not declared for this county		
1978-02-07	1978-02-07	EM-3058-RI	Emergency	Blizzard & Snowstorms	Winter Weather	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
1955-08-20	1955-08-20	DR-39-RI	Major disaster	Hurricane & Flood	Hurricane (primary); also designated: Inland Flooding
1954-09-02	1954-09-02	DR-23-RI	Major disaster	Hurricanes	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.

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
Coastal Flooding	8			1	0		1996 to 2026-06-30	
Cold Wave	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Drought	4			0	0		1996 to 2026-06-30	
Earthquake	0			0	0			Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	6			1	0		1955 to 2026-06-30	
Heat Wave	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Hurricane	3			0	5		1996 to 2026-06-30	
Ice Storm	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Inland Flooding	22			4	1		1996 to 2026-06-30	

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
Landslide	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Lightning	7			4	0		1996 to 2026-06-30	
Strong Wind	99			5	0		1955 to 2026-06-30	Includes 27 High Wind and 52 Strong Wind records.
Tornado	2			0	0		1950 to 2026-06-30	
Tsunami	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Wildfire	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Winter Weather	66			5	8		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
2025-03-07	Strong Wind	43 kt (49 mph) estimated gust	\$300 property; \$0 crops (zone total, 2025 dollars)	0, 1	NWS zone RIZ005 (BRISTOL), zone-level	within last 5 years	deaths or injuries recorded
2021-08-22	Tropical Storm		\$200,000 property; \$0 crops (zone total, 2021 dollars)	0, 0	NWS zone RIZ005 (BRISTOL), zone-level		B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression
2016-09-13	Drought		\$0 property; \$0 crops (zone total, 2016 dollars)	0, 0	NWS zone RIZ005 (BRISTOL), zone-level		B1-c worst recorded: Drought
2012-10-29	Coastal Flood		\$220,000 property; \$0 crops (zone total, 2012 dollars)	0, 0	NWS zone RIZ005 (BRISTOL), zone-level		B1-c worst recorded: Coastal Flood, Storm Surge/Tide
2012-10-29	High Wind	63 kt (72 mph) estimated gust	\$0 property; \$0 crops (zone total, 2012 dollars)	0, 0	NWS zone RIZ005 (BRISTOL), zone-level		B1-c worst recorded: High Wind and Strong Wind
2010-03-30	Flood		\$5,910,000 property; \$0 crops (2010 dollars)	0, 0	BRISTOL to BRISTOL HIGHLANDS		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2008-07-23	Tornado	EF1, 2.97 mi within this county, 40 yd wide	\$45,000 property; \$0 crops (2008 dollars)	0, 0	BARRINGTON to COGGESHALL		B1-c worst recorded: Tornado
2008-06-24	Lightning		\$0 property; \$0 crops (2008 dollars)	1, 0	BRISTOL		deaths or injuries recorded
1997-06-22	Lightning		\$50,000 property; crops not reported (1997 dollars)	0, 0	WEST BARRINGTON		B1-c most damaging: Lightning
1997-06-22	Hail	1.5 in	damage not reported	0, 0	WEST BARRINGTON		B1-c worst recorded: Hail
1997-06-22	Thunderstorm Wind	70 kt (81 mph), measurement type not recorded	\$70,000 property; crops not reported (1997 dollars)	0, 0	WEST BARRINGTON		B1-c worst recorded: Thunderstorm Wind
1997-04-01	Heavy Snow		\$100,000 property; crops not reported (zone total, 1997 dollars)	0, 0	NWS zone RIZ005 (BRISTOL), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet

The full list is in the Excel file, sheet "B1-d Storm Events history" (217 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
Coastal Flooding	3.76	events per year at a location (modeled)	about 3.8 per year at a given location in the county	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	Descriptor from NRI: the rate at a location is 1 or more a year, so the county rate is at least that.
Cold Wave	0.833	event-days per year	about 0.833 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	9.17	2005-11-12 to 2024-11-12 (19 years)	countywide	No Storm Events cold wave record, 1996 to 2025.
Drought	2.91	event-days per year	about 2.91 days per year	Possible	Storm Events event-days in 2 of 30 years, 1996 to 2025 (6.67%)	77	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	
Earthquake	0.00127	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.127%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	1.06	events per year	about 1.06 per year	Highly likely	FEMA annualized frequency (modeled)	66.3 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	3.44	event-days per year	about 3.44 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	32.7	2005-11-12 to 2024-11-12 (19 years)	countywide	No Storm Events heat wave record, 1996 to 2025
Hurricane	0.196	events per year	about 1 in 5 years	Likely	FEMA annualized frequency (modeled)	30	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.238	event-days per year	about 0.238 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	16	1946-12-31 to 2014-02-12 (67 years)	countywide	No Storm Events ice storm record, 1996 to 2025
Inland Flooding	0.714	event-days per year	about 0.714 days per year	Likely	Storm Events event-days in 14 of 30 years, 1996 to 2025 (46.7%)	20	1996 to 2023 (28 years)	see B1-f	

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
Landslide	0.00423	events per year (modeled)	about 1 in 236 years	Unlikely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	21.2	days per year with a strike	about 21.2 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.699	events per year	about 0.7 per year	Likely	FEMA annualized frequency (modeled)	27	1986 to 2023 (38 years)	countywide	
Tornado	0.00649	events per year	about 1 in 154 years	Unlikely	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)			Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Wildfire	0.0000116	annual probability at a location	chance a given location in the county burns in a year: 0.00116%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Winter Weather	9.94	event-days per year	about 9.94 days per year	Highly likely	Storm Events event-days in 27 of 30 years, 1996 to 2025 (90%)	109	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	3	30	0.1
Hail	2.00 in+	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	14	30	0.467
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	2	30	0.0667
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	2	30	0.0667
Tornado	EF0-1	1996 to 2025	1	30	0.0333
Tornado	EF2-3	1996 to 2025	0	30	0
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	
Coastal Flooding	11 of 11	90.7	93.0	97.3	Relatively High 2, Relatively Moderate 9
Cold Wave	11 of 11	22.3	25.0	35.8	Relatively Low 11
Drought	2 of 11	76.3	78.3	80.2	Relatively Low 1, Very Low 1, No Rating 9
Earthquake	11 of 11	35.7	44.4	64.4	Relatively Low 8, Very Low 3
Hail	11 of 11	2.0	2.4	9.0	Very Low 11
Heat Wave	11 of 11	8.8	15.0	37.3	Relatively Low 4, Very Low 7
Hurricane	11 of 11	71.1	74.7	84.1	Relatively Moderate 3, Relatively Low 8
Ice Storm	11 of 11	17.1	20.8	47.9	Relatively Low 2, Very Low 9
Inland Flooding	11 of 11	15.1	32.0	73.6	Relatively Moderate 1, Relatively Low 10
Landslide	11 of 11	11.9	24.0	52.3	Very Low 11
Lightning	11 of 11	71.5	84.1	97.2	Very High 1, Relatively High 8, Relatively Moderate 2
Strong Wind	11 of 11	30.6	36.3	63.9	Relatively Moderate 2, Relatively Low 9
Tornado	11 of 11	17.9	20.6	35.3	Relatively Low 2, Very Low 9
Tsunami	0 of 11				Insufficient Data 11
Wildfire	11 of 11	20.3	42.7	58.0	Very Low 11
Winter Weather	11 of 11	32.7	38.3	59.0	Relatively Moderate 3, Relatively Low 8

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
Barrington town	Town	Approved, expires 2028-02-07	FMA RL 0, SRL 1; any 15	\$739,135.09	9 total; 0 since its plan	Includes \$6,716.47 for declarations not counted as hazard incidents (DR-4505-RI).
Bristol town	Town	Approved, expires 2029-04-22	FMA RL 0, SRL 0; any 12	\$728,133.11	23 total; 1 since its plan	Includes \$40,575.50 for declarations not counted as hazard incidents (DR-4505-RI).
Warren town	Town	Approved, expires 2027-09-14	FMA RL 0, SRL 3; any 10	\$561,504.68	8 total; 0 since its plan	Includes \$106,690.11 for declarations not counted as hazard incidents (DR-4505-RI).

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.

No county-level plan row in FEMA data, so there is no approval date to count from.

- 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 plan <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
Coastal Flooding	\$3,705,237,658	n/a	15,417	\$1,104,283	n/a	\$4,671	0.0298%				
Cold Wave	\$11,674,761,502	\$1,294,056	50,793	\$105	\$89	\$163,451	under 0.0001%				
Drought	n/a	\$340,467	n/a	n/a	\$2,221	n/a	0.652% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$19,762,735,224	n/a	50,793	\$311,129	n/a	\$72,800	0.00157%				
Hail	\$11,674,762,436	\$1,294,056	50,793	\$1,285	\$4	\$426	under 0.0001%				
Heat Wave	\$11,674,761,502	\$1,294,056	50,793	under \$1	\$102	\$161,351	under 0.0001%				
Hurricane	\$11,673,066,224	\$1,294,056	50,783	\$1,101,741	\$10,972	\$33,878	0.00944%				
Ice Storm	\$11,513,436,693	n/a	50,223	\$21,420	n/a	\$2,958	0.000186%				
Inland Flooding	\$11,632,875,828	\$135,532	7,244	\$5,540,352	under \$1	\$26,766	n/a (see note)				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	\$73,517,096	n/a	284	\$3	n/a	\$4	under 0.0001%				
Lightning	\$11,674,762,436	n/a	50,793	\$8,619	n/a	\$489,286	under 0.0001%				
Strong Wind	\$11,674,762,436	\$1,294,056	50,793	\$60,546	under \$1	\$95,175	0.000519%				
Tornado	\$11,674,762,436	\$1,294,056	50,793	\$115,366	\$7	\$25,941	0.000988%				

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 plan <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
Tsunami	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Wildfire	\$1,479,299,098	\$390,942	7,068	\$1,541	under \$1	\$154	0.000104%				
Winter Weather	\$11,674,761,502	\$1,294,056	50,793	\$4,596	under \$1	\$17,553	under 0.0001%				

Totals since the plan: not available. No county-level plan row in FEMA data, so there is no approval date to count from.

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	50,793
Building value (total, not at risk)	\$11,674,762,436
Agriculture value (total, not at risk)	\$1,294,056
NRI risk rating (all hazards)	Very Low
Expected annual loss, buildings and agriculture, all hazards	\$8,284,382
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)	\$1,094,413
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)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	4
Repetitive loss, NFIP insurance definition	36	Severe repetitive loss, NFIP insurance definition	3

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

Repeat-flood properties: county total and NFIP communities

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	0	4	36	3	37	1	15
of which: Barrington town	0	1	14	0	15	1	4
of which: Bristol town	0	0	12	0	12	0	6
of which: Warren town	0	3	10	3	10	0	5

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>
Barrington town	445392	0	1	14	0	15	1	4
Bristol town	445393	0	0	12	0	12	0	6
Warren town	445408	0	3	10	3	10	0	5

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	0	2	25	1	26	1	11
2 to 4 unit residential	0	0	7	0	7	0	3
other residential	0	0	0	0	0	0	0
non-residential	0	2	4	2	4	0	1
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 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 36 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

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

What this packet is and what the plan adds

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

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

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

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Corrections: to report an error, name the packet, the table and what your records show. Contact: contact@hazardplain.org