

Virginia Beach city, VA

Risk-assessment baseline packet

Unit **Independent city 51810** Release **2026-10** As of **2026-09-28** Storm Events data through **2026-06-30**

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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.

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Plan clock

Status	Approved, expires 2027-06-07	Plan	PDC 23 Hampton Roads Hazard Mitigation Plan (FEMA plan 108315)
Approved	2022-06-08	Expires	2027-06-07
As of	2026-09-28	Days	252 days to expiry
Update underway	FEMA tracker shows a plan in progress		

What changed since your last plan (approved 2022-06-08)

New federal declarations	EM-3631-VA (1 declaration row; 1 counted incident)	Storm Events records since approval	98 (data through 2026-06-30)
Repetitive loss now	FMA RL 42, SRL 126 (44 CFR 77.2); any definition: 666	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
Virginia Beach city	City	Approved, expires 2027-06-07	PDC 23 Hampton Roads Hazard Mitigation Plan (FEMA plan 108315)	2022-06-08	2027-06-07	252	FEMA tracker shows a plan in progress	member approved 2022-06-07
Hampton Roads Sanitation District	Water/Sewer Authority	Approved, expires 2027-06-07	PDC 23 Hampton Roads Hazard Mitigation Plan (FEMA plan 108315)	2022-06-08	2027-06-07	252	FEMA tracker shows a plan in progress	member approved 2024-02-07

Plan 108315 also covers 25 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.

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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 modeled dollars per year	EAL agriculture modeled dollars per year	EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage	EAL total (see note) modeled dollars per year	Storm Events records since 1996 count	Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
1	Hurricane	Relatively Moderate	Relatively High	\$8,796,033	\$157,335	\$889,736	\$9,843,104	17		
2	Heat Wave	Relatively Moderate	Relatively Moderate	\$33	\$19	\$5,419,905	\$5,419,956	4		
3	Inland Flooding	Very Low	Relatively Low	\$4,668,328	\$13,235	\$343,399	\$5,024,962	87		
4	Tornado	Relatively Moderate	Relatively Moderate	\$897,487	\$247	\$2,595,638	\$3,493,372	8		
5	Cold Wave	Relatively Low	Relatively Moderate	\$2,722	\$6,481	\$1,841,087	\$1,850,290	0		Declared 1 time; no Storm Events record of this type.
6	Lightning	Relatively High	Relatively High	\$21,436		\$1,516,786	\$1,538,222	14		
7	Coastal Flooding	Relatively Moderate	Relatively Moderate	\$779,408		\$638,502	\$1,417,910	30		
8	Earthquake	Relatively Low	Relatively Low	\$796,841		\$275,697	\$1,072,538			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
9	Hail	Relatively Low	Relatively Low	\$483,098	\$3,617	\$7,957	\$494,672	59		
10	Strong Wind	Very Low	Relatively Low	\$45,945	\$20	\$132,694	\$178,659	159		Includes 13 High Wind records and 9 Strong Wind records, 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
11	Wildfire	Very Low	Relatively Low	\$78,263	\$28	\$23,386	\$101,677	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.
12	Ice Storm	Relatively Low	Relatively Low	\$17,782		\$77,670	\$95,451	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Winter Weather	Relatively Low	Relatively Low	\$6,566	under \$1	\$56,510	\$63,076	48		
14	Drought	Very Low	Very Low		\$9,934		\$9,934	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
15	Landslide	Very Low	Very Low	\$107		\$1	\$108	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.
	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).
	Tsunami	Insufficient Data	Insufficient Data					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.
	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 111
Coastal 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.	107 of 111

Hazard	Location	Census tracts rated <i>rated of all tracts</i>
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	27 of 111
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.	111 of 111
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
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.	111 of 111
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
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.	111 of 111
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.	109 of 111
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111
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.	111 of 111
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 111
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 111
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.	108 of 111
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	111 of 111

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)	30, 1997 to 2025 (30 zone-level)		Coastal Flood, 2009-11-12, \$5,000,000 property; \$0 crops, reported for the zone (2009 dollars); NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	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	0					Wind chill: in event narratives only; local data required.
Frost/Freeze (outside NRI Cold Wave definition)	crop damage	0					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)	72, 1957 to 2025	0.67 in to 2.5 in (median 1 in); 72 with a recorded value	2.5 in hail, 1990-07-01	Hail, 1997-05-01, \$5,000,000 property; crops not reported (1997 dollars)	Event records naming member places: Virginia Beach city (16 records).	
Excessive Heat, Heat	heat index (narratives)	4, 1996 to 2025 (4 zone-level)	3 days to 4 days (median 3.5 days); 4 with a recorded value	4 consecutive days, 2012-07-05 to 2012-07-08, 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	17, 1996 to 2025 (17 zone-level)		Strongest recorded (records with damage, a wind speed or direct casualties first, then storm type, category and wind): Hurricane (Typhoon) record, 2003-09-18 to 2003-09-19, \$39,000,000 property; \$400,000 crops, reported for the zone (2003 dollars); NWS zone VAZ098 (VIRGINIA BEACH), 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)	0					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)	87, 1996 to 2026		Flood, 2016-10-08, \$5,000,000 property; \$0 crops (2016 dollars)		Event records naming member places: Virginia Beach city (12 records).	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)	14, 1996 to 2025		Lightning, 2008-07-06, \$0 property; \$0 crops (2008 dollars), 1 direct death	Lightning, 2007-08-20, \$300,000 property; \$0 crops (2007 dollars)	Event records naming member places: Virginia Beach city (8 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)	22, 2000 to 2026 (22 zone-level)	35 kt (40 mph) to 68 kt (78 mph) (median 50 kt (58 mph)); 22 with a recorded value	68 kt (78 mph) measured gust, High Wind, 2016-10-08; NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	
Thunderstorm Wind	wind speed (kt and mph)	199, 1956 to 2026	50 kt (58 mph) to 85 kt (98 mph) (median 50 kt (58 mph)); 160 with a recorded value	85 kt (98 mph), measurement type not recorded, Thunderstorm Wind, 1980-04-04	Thunderstorm Wind, 2014-07-10, \$200,000 property; \$0 crops (2014 dollars)	Event records naming member places: Virginia Beach city (30 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)	15, 1967 to 2023	F/EF0 to F/EF3 (median between F/EF0 and F/EF1); 14 with a recorded value	EF3 tornado, 2023-04-30, 4.5 mi within this county, 350 yd wide, \$20,000,000 property; \$0 crops (2023 dollars)		Event records naming member places: Virginia Beach city (1 record).	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)	48, 1996 to 2026 (48 zone-level)		Winter Storm, 2000-01-25, \$50,000 property; crops not reported, reported for the zone (2000 dollars); NWS zone VAZ098 (VIRGINIA BEACH), 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

18

Counted incidents

13

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
2026-01-23	2026-01-22	EM-3631-VA	Emergency	SEVERE WINTER STORM	Winter Weather	none found	new since last plan; within last 5 years	
2020-04-02	2020-01-20	DR-4512-VA	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$3,648,067.99		
2020-03-13	2020-01-20	EM-3448-VA	Emergency	COVID-19	Non-natural, not counted	none found		same incident as DR-4512
2018-09-11	2018-09-13	EM-3403-VA	Emergency	HURRICANE FLORENCE	Hurricane	none found		
2016-11-02	2016-10-07	DR-4291-VA	Major disaster	HURRICANE MATTHEW	Hurricane	none found		
2012-10-29	2012-10-26	EM-3359-VA	Emergency	HURRICANE SANDY	Hurricane	none found		
2011-09-03	2011-08-26	DR-4024-VA	Major disaster	HURRICANE IRENE	Hurricane	\$4,697,217.29		
2011-08-26	2011-08-26	EM-3329-VA	Emergency	HURRICANE IRENE	Hurricane	none found		same incident as DR-4024
2009-12-09	2009-11-11	DR-1862-VA	Major disaster	SEVERE STORMS AND FLOODING ASSOCIATED WITH TROPICAL DEPRESSION IDA AND A NOR'EAST	Hurricane; Inland Flooding	\$1,909,913.41		
2005-09-12	2005-08-29	EM-3240-VA	Emergency	HURRICANE KATRINA EVACUATION	Hurricane: evacuation support, not a local hazard event; not counted	\$22,220.44		
2003-09-18	2003-09-18	DR-1491-VA	Major disaster	HURRICANE ISABEL	Hurricane	\$15,032,391.05		
1999-09-18	1999-09-13	DR-1293-VA	Major disaster	HURRICANE FLOYD MAJOR DISASTER DECLARATIONS	Hurricane	\$781,702.30		
1999-09-16	1999-09-13	EM-3147-VA	Emergency	HURRICANE FLOYD EMERGENCY DECLARATIONS	Hurricane	none found		same incident as DR-1293
1998-09-04	1998-08-25	DR-1242-VA	Major disaster	HURRICANE BONNIE	Hurricane	none found		
1996-01-13	1996-01-06	DR-1086-VA	Major disaster	BLIZZARD OF 96 (SEVERE SNOW STORM)	Winter Weather	none found		
1993-03-25	1993-03-13	EM-3112-VA	Emergency	SEVERE WINTER STORM	Winter Weather	none found		
1977-01-26	1977-01-26	DR-525-VA	Major disaster	ICE CONDITIONS	Cold Wave	PA not declared for this county		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1972-06-23	1972-06-23	DR-339-VA	Major disaster	TROPICAL STORM AGNES	Inland Flooding (primary); also designated: Hurricane	none found		

School districts and special districts in this county: \$180,802.27 (included in the county total above). Public Assistance matched by applicant name to the school districts and special districts FEMA lists as plan members in this county. They are not shown as member blocks, so their total is listed here. These dollars are already included in the county PA column of the declarations table (the FEMA record places each applicant in this county); do not add this line to the county total.

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
1963-03-21	1963-03-21	DR-149-VA	Major disaster	FLOODS	Inland Flooding		
1962-03-09	1962-03-09	DR-123-VA	Major disaster	SEVERE STORMS, HIGH TIDES & FLOODING	Inland Flooding (primary); also designated: Coastal Flooding		
1957-02-01	1957-02-01	DR-68-VA	Major disaster	FLOODS	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.

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, \$23,777.38

FEMA number	Declared	Title	Applicant	PA obligated
				<i>federal share obligated, nominal dollars</i>
DR-4602-VA	2021-05-10	SEVERE WINTER STORMS	McKenney, Town of	\$23,777.38

FEMA's Public Assistance summaries file these applicants under this county, but FEMA's declaration rows for these disasters do not designate it (an electric cooperative or district serving several counties, for example). Not in any declaration row above and not counted.

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 <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
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	30	10	4	14	0	0	1996 to 2026-06-30	

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
Cold Wave	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)
Drought	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Earthquake	0	0	0	0	0	0		No Storm Events record; local data required (e.g., USGS).
Hail	72	10	0	10	0	0	1955 to 2026-06-30	
Heat Wave	4	1	0	1	0	0	1996 to 2026-06-30	
Hurricane	17	2	1	2	9	0	1996 to 2026-06-30	
Ice Storm	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Inland Flooding	87	41	0	41	2	0	1996 to 2026-06-30	
Landslide	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Lightning	14	1	1	1	0	0	1996 to 2026-06-30	
Strong Wind	221	28	9	35	0	0	1955 to 2026-06-30	Includes 13 High Wind records and 9 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	15	1	0	1	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
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	48	4	2	6	3	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
2023-04-30	Tornado	EF3, 4.5 mi within this county, 350 yd wide	\$20,000,000 property; \$0 crops (2023 dollars)	0, 0	OCEAN PARK to CAPE HENRY	new since last plan; within last 5 years	B1-c worst recorded: Tornado
2016-10-08	Flood		\$5,000,000 property; \$0 crops (2016 dollars)	0, 0	CAPE HENRY to MUNDEN		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2016-10-08	High Wind	68 kt (78 mph) measured gust	\$250,000 property; \$0 crops, reported for the zone (2016 dollars)	0, 0	NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
2012-07-05	Heat		\$0 property; \$0 crops, reported for the zone (2012 dollars)	0, 0	NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		B1-c worst recorded: Excessive Heat, Heat
2009-11-12	Coastal Flood		\$5,000,000 property; \$0 crops, reported for the zone (2009 dollars)	0, 0	NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		B1-c worst recorded: Coastal Flood, Storm Surge/Tide
2008-07-06	Lightning		\$0 property; \$0 crops (2008 dollars)	1, 0	VIRGINIA BEACH		deaths or injuries recorded
2004-07-01	Lightning		damage not reported	1, 0	VIRGINIA BEACH		deaths or injuries recorded
2003-09-18	Hurricane (Typhoon)		\$39,000,000 property; \$400,000 crops, reported for the zone (2003 dollars)	0, 0	NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression
2000-07-30	Lightning		damage not reported	1, 1	NORTH VIRGINIA BEACH		deaths or injuries recorded
2000-01-25	Winter Storm		\$50,000 property; crops not reported, reported for the zone (2000 dollars)	0, 0	NWS zone VAZ098 (VIRGINIA BEACH), zone-level: may include parts of neighboring counties		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
1990-07-01	Hail	2.5 in	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Hail
1980-04-04	Thunderstorm Wind	85 kt (98 mph), measurement type not recorded	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Thunderstorm Wind

The full list is in the **XLSX file, sheet "B1-d Storm Events history" (508 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	3.43	events per year at a location (modeled)	about 3.4 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	0.463	event-days per year	about 0.463 days per year		event-days in 0 of 30 years, 1996 to 2025 (0%)	4.68	2005-11-12 to 2024-11-12 (19 years)	countywide	No recorded event-days, 1996 to 2025; descriptor not assigned. Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.
Drought	0.821	event-days per year	about 0.821 days per year		event-days in 0 of 30 years, 1996 to 2025 (0%)	28	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No recorded event-days, 1996 to 2025; descriptor not assigned
Earthquake	0.00083	annual probability at a location	chance a given location in the county has at least minor- damage shaking in a year: 0.083%			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	1.37	events per year	about 1.37 per year	Highly likely	FEMA annualized frequency (modeled)	56.1 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	6.07	event-days per year	about 6.07 days per year	Likely	event-days in 4 of 30 years, 1996 to 2025 (13.3%)	48.4	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 6.07 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 4 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	0.243	events per year	about 1 in 4 years	Likely	FEMA annualized frequency (modeled)	78	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	0.736	event-days per year	about 0.736 days per year		event-days in 0 of 30 years, 1996 to 2025 (0%)	31	1946-12-31 to 2014-02-12 (67 years)	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
Inland Flooding	1.32	event-days per year	about 1.32 days per year	Likely	event-days in 19 of 30 years, 1996 to 2025 (63.3%)	37	1996 to 2023 (28 years)	see B1-f	
Landslide	0.0333	events per year (modeled)	about 1 in 30 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	40.2	days per year with a strike	about 40.2 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.534	events per year	about 0.53 per year	Likely	FEMA annualized frequency (modeled)	13	1986 to 2023 (38 years)	countywide	
Tornado	0.197	events per year	about 1 in 5 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)			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)
Volcanic Activity		annual probability				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Wildfire	0.00042	annual probability at a location	chance a given location in the county burns in a year: 0.042%		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	2.88	event-days per year	about 2.88 days per year	Likely	event-days in 18 of 30 years, 1996 to 2025 (60%)	29.1	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
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	47	30	1.57
Hail	2.00 in+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	122	30	4.07
Strong Wind (Thunderstorm Wind records)	65 kt+	1996 to 2025	3	30	0.1
Strong Wind (Thunderstorm Wind records)	unmeasured or below 50 kt	1996 to 2025	9	30	0.3
Tornado	EF0-1	1996 to 2025	6	30	0.2
Tornado	EF2-3	1996 to 2025	2	30	0.0667
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	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 rated of all	Risk score min NRI score, 0 to 100	Median	Max	Tracts by rating	Note
Avalanche	0 of 111				Not Applicable 111	
Coastal Flooding	107 of 111	70.0	78.4	95.9	Relatively High 1, Relatively Moderate 18, Relatively Low 39, Very Low 49, No Rating 4	
Cold Wave	111 of 111	19.5	26.6	37.4	Relatively Low 111	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	27 of 111	67.8	71.1	82.9	Relatively Low 4, Very Low 23, No Rating 84	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	111 of 111	1.1	17.7	65.5	Relatively Low 8, Very Low 103	
Hail	111 of 111	4.1	33.6	77.0	Relatively Moderate 2, Relatively Low 41, Very Low 68	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	111 of 111	13.7	51.1	75.6	Relatively Moderate 40, Relatively Low 69, 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.
Hurricane	111 of 111	47.9	69.5	91.5	Relatively High 1, Relatively Moderate 16, Relatively Low 91, Very Low 3	
Ice Storm	111 of 111	1.9	7.3	28.4	Very Low 111	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	111 of 111	0.2	0.7	15.4	Relatively Low 1, Very Low 110	
Landslide	109 of 111	9.6	26.0	62.4	Very Low 109, No Rating 2	
Lightning	111 of 111	17.8	48.8	74.6	Relatively Moderate 53, Relatively Low 57, Very 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.
Strong Wind	111 of 111	4.0	10.8	20.6	Relatively Low 2, Very Low 109	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	111 of 111	13.3	33.6	55.5	Relatively Moderate 2, Relatively Low 81, Very Low 28	
Tsunami	0 of 111				Insufficient Data 111	
Volcanic Activity	0 of 111				Not Applicable 111	
Wildfire	108 of 111	18.6	42.4	83.7	Relatively Low 17, Very Low 91, No Rating 3	

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Winter Weather	111 of 111	16.8	23.5	35.5	Relatively Low 106, Very Low 5	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
Virginia Beach city	City	Approved, expires 2027-06-07	FMA RL 42, SRL 126; any 666	\$25,874,835.79	67; 4	Includes \$3,548,153.27 for declarations not counted as hazard incidents (DR-4512-VA).

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 2022-06-08 <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	\$2,439,811,153		54,586	\$779,408		\$638,502	0.0319%		\$80,000		
Cold Wave	\$28,260,979,801	\$17,615,322	458,793	\$2,722	\$6,481	\$1,841,087	under 0.0001%				
Drought		\$3,863,716			\$9,934		0.257% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$58,174,835,584		459,470	\$796,841		\$275,697	0.00137%				
Hail	\$28,263,710,357	\$17,615,322	458,853	\$483,098	\$3,617	\$7,957	0.00171%	\$0			
Heat Wave	\$28,260,979,801	\$17,615,322	458,793	\$33	\$19	\$5,419,905	under 0.0001%		\$0		
Hurricane	\$28,263,618,927	\$17,615,322	458,841	\$8,796,033	\$157,335	\$889,736	0.0311%		\$0		
Ice Storm	\$28,249,501,206		458,451	\$17,782		\$77,670	under 0.0001%				
Inland Flooding	\$28,198,283,586	\$1,056,710	29,124	\$4,668,328	\$13,235	\$343,399	n/a (see note)	\$0			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	\$88,013,528		1,785	\$107		\$1	0.000121%				
Lightning	\$28,263,710,357		458,853	\$21,436		\$1,516,786	under 0.0001%	\$2,000			
Strong Wind	\$28,263,710,357	\$17,615,322	458,853	\$45,945	\$20	\$132,694	0.000163%	\$43,500	\$2,000		Storm Events damage since the plan includes 1 zone-level High Wind record (\$2,000), an event type the NRI definition of this hazard leaves out.
Tornado	\$28,263,710,357	\$17,615,322	458,853	\$897,487	\$247	\$2,595,638	0.00318%	\$20,000,000			
Tsunami											NRI publishes no building exposure for this county

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 2022-06-08 <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
Volcanic Activity											Not Applicable in NRI for this county
Wildfire	\$4,865,623,212	\$4,432,260	79,712	\$78,263	\$28	\$23,386	0.00161%				
Winter Weather	\$28,260,979,801	\$17,615,322	458,793	\$6,566	under \$1	\$56,510	under 0.0001%		\$1,000	none found (1 declaration)	

Totals since 2022-06-08 (Storm Events through 2026-06-30): 75 county-coded records, 74 with a damage value recorded (including \$0), \$20,045,500; 23 zone-level records, 16 with a damage value recorded (including \$0), \$83,000 reported for the zone; Public Assistance on counted declarations none found (1 declaration, 0 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	458,853
Building value (total, not at risk)	\$28,263,710,357
Agriculture value (total, not at risk)	\$17,615,322
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$16,784,963
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)	\$13,818,968
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)	42	Severe repetitive loss, FMA definition (44 CFR 77.2)	126
Repetitive loss, NFIP insurance definition	646	Severe repetitive loss, NFIP insurance definition	109

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	42	126	646	109	666	12	402
VIRGINIA BEACH, CITY OF	42	126	646	109	666	12	402
State level, not in this county: county not reported	0	0	4	0	4	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
Virginia Beach city	515531	42	126	646	109	666	12	402	

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	41	114	594	97	614	12	382
2 to 4 unit residential	0	3	26	3	26	0	10

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>
other residential	1	7	16	7	16	0	7
non-residential	0	2	10	2	10	0	3
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 8 properties are FMA repetitive loss but not NFIP repetitive loss, and 612 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_Gaz_place_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_Gaz_elsd_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

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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_VA_51810. Preview: automated baseline.