

Richmond town, VT

Risk-assessment baseline packet (county-level sections from Chittenden County)

Unit **Vermont town 5000759275** Release **2026-10** As of **2026-09-28** Storm Events data through **2026-06-30**

Hazard Plain is an independent product built from public federal data. It is not a FEMA document and is not reviewed or endorsed by FEMA or any state agency.

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

OPENFEMA DISCLAIMER

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

Plan clock

Status	Approved, expires 2027-11-10	Plan	2022 Chittenden County All Hazards Multi-Jurisdictional Hazard Mitigation Plan (FEMA plan 108641)
Approved	2022-11-11	Expires	2027-11-10
As of	2026-09-28	Days	408 days to expiry

What changed since your last plan (approved 2022-11-11)

New federal declarations	DR-4695-VT, EM-3595-VT, DR-4720-VT, DR-4770-VT, EM-3609-VT, DR-4810-VT (6 declaration rows; 5 counted incidents)	Storm Events records since approval (Chittenden County, county-level)	89 (data through 2026-06-30)
Repetitive loss now (this town)	FMA RL 0, SRL 1 (44 CFR 77.2); any definition: 5	Repetitive loss scope	This town's NFIP community only. The other participants of the town's plan (Bolton town; Buels gore; Burlington city; Charlotte town; Essex Junction village; Essex town; Hinesburg town; Huntington town; Jericho town; Milton town; Shelburne town; South Burlington city; St. George town; Underhill town; Westford town; Williston town; Winooski city) are not counted here; the B2-c county table lists a community only when FEMA's multiple-loss file has properties for it.
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 this town

						Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Jurisdiction	Type	Status	Plan	Approved	Expires			
Richmond town	Town	Approved, expires 2027-11-10	2022 Chittenden County All Hazards Multi-Jurisdictional Hazard Mitigation Plan (FEMA plan 108641)	2022-11-11	2027-11-10	408		member approved 2023-01-17

Plan 108641 also covers 17 other participants not listed on this page (named in the XLSX file).

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

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

CONTENTS

1. Plan clock, page 1	7. Supports B1-e: probability, page 13
2. What changed since your last plan (approved 2022-11-11), page 1	8. Supports B1-f: variation across the planning area, page 17
3. Supports B1-a: hazards, page 3	9. Supports B2-a and B2-b: assets and impacts, page 18
4. Supports B1-b: location, page 5	10. Supports B2-a: context, page 20
5. Supports B1-c: extent, page 5	11. Supports B2-c: repetitive loss, page 21
6. Supports B1-d: previous occurrences, page 9	12. Sources and OpenFEMA disclaimer, page 22

Supports B1-a: hazards

Inherited from Chittenden County, county-level (county FIPS 50007); scope: whole section.

Hazards NRI does not cover: check locally

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

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

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records since 1996 <i>count</i>	Evidence for an omission <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
1	Inland Flooding	Relatively Moderate	Relatively Moderate	\$28,508,887	\$67,191	\$221,627	\$28,797,704	80		
2	Earthquake	Relatively Low	Relatively Low	\$1,833,011		\$314,944	\$2,147,955			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
3	Heat Wave	Relatively Low	Relatively Moderate	\$1	\$37,686	\$1,759,734	\$1,797,421	12		
4	Cold Wave	Relatively Low	Relatively Moderate	\$6,086	\$77,432	\$1,503,744	\$1,587,262	34		Includes 5 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
5	Lightning	Relatively High	Relatively High	\$90,828		\$1,327,077	\$1,417,906	21		
6	Strong Wind	Relatively Moderate	Relatively Moderate	\$548,593	\$7,299	\$666,883	\$1,222,775	352		Includes 52 High Wind records and 55 Strong Wind records, event types the NRI definition of this hazard leaves out.
7	Tornado	Relatively Low	Relatively Low	\$232,690	\$95	\$614,136	\$846,921	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
8	Hurricane	Relatively Low	Relatively Low	\$606,338	\$26,484	\$28,240	\$661,061	0		Declared 3 times; no Storm Events record of this type.

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
9	Ice Storm	Relatively Moderate	Relatively High	\$540,984		\$59,687	\$600,671	3		
10	Winter Weather	Relatively Moderate	Relatively High	\$151,031	\$69	\$313,954	\$465,054	313		
11	Avalanche	Relatively Moderate	Relatively Low	under \$1		\$456,666	\$456,666	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
12	Hail	Very Low	Very Low	\$12,645	\$7,277	\$78,688	\$98,610	120		
13	Wildfire	Very Low	Very Low	\$16,249	\$8	\$2,328	\$18,585	0		No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
14	Landslide	Relatively Low	Relatively Low	\$11,303		\$7,061	\$18,363	0		Declared 3 times; no Storm Events record of this type. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
15	Drought	No Rating	No Expected Annual Losses		\$0		\$0	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Coastal Flooding	Not Applicable	Not Applicable					0	NRI rates coastal flooding Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Tsunami	Not Applicable	Not Applicable					0	NRI rates tsunami Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
	Volcanic Activity	Not Applicable	Not Applicable					0	NRI rates volcanic activity Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB),
https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
 NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

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

Supports B1-b: location

Inherited from Chittenden County, county-level (county FIPS 50007); scope: whole section.

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.	5 of 41
Coastal Flooding	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 41
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	0 of 41
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.	41 of 41
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
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.	41 of 41
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
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.	41 of 41
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.	41 of 41
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41
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.	41 of 41
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 41
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 41
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.	38 of 41
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	41 of 41

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

Inherited from Chittenden County, county-level (county FIPS 50007); scope: whole section.

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)	Where in the county	Note
Avalanche	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Coastal Flood, Storm Surge/ Tide	none in data (FIRM for depth)	0					Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	29, 1996 to 2026 (29 zone-level)	1 day to 28 days (median 2 days); 26 with a recorded value	28 days, 2015-02-01 to 2015-02-28, from 1 monthly summary record (a monthly summary record covers most or all of a month; it does not count days at wave conditions), zone-level	Cold/Wind Chill, 2004-01-15, \$100,000 property; crops not reported, reported for the zone (2004 dollars)	Zone-level records: applies countywide; national data do not locate these events within the county.	Wind chill: in event narratives only; local data required.
Frost/Freeze (outside NRI Cold Wave definition)	crop damage	5, 2005 to 2023 (5 zone-level)		Frost/Freeze, 2023-05-18, \$1,500,000 crop damage, reported for the zone (2023 dollars); NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Temperature: in event narratives only; local data required.
Drought	US Drought Monitor D-scale	0					Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					No Storm Events record; local data required (e.g., USGS).
Hail	hail size (inches)	136, 1957 to 2025	0.5 in to 3.3 in (median 1 in); 132 with a recorded value	3.3 in hail, 2009-07-16		Event records naming places in the county (county page list): Colchester town (13 records), Underhill town (10 records), Milton town (9 records), Williston town (9 records), Westford town (8 records), Burlington city (7 records), Hinesburg town (7 records), Charlotte town (6 records), Winooski city (6 records), South Burlington city (5 records); and 7 more places (see the XLSX file).	

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	Where in the county	Note
Excessive Heat, Heat	heat index (narratives)	12, 1996 to 2025 (12 zone-level)	1 day to 6 days (median 2 days); 7 with a recorded value	6 consecutive days, 2020-06-18 to 2020-06-23, zone-level	Heat, 2012-03-17, \$0 property; \$500,000 crops, reported for the zone (2012 dollars)	Zone-level records: applies countywide; national data do not locate these events within the county.	Heat index: in event narratives only; local data required. Heat records from November to March (unseasonable warmth, not a heat wave) are counted but not used for the longest run.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					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)	3, 1998 to 2013 (3 zone-level)		Ice Storm, 1998-01-06, \$2,500,000 property; crops not reported, reported for the zone (1998 dollars), 1 direct injury (reported for the zone); NWS zone VTZ005 (CHITTENDEN), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Ice thickness: in event narratives only; local data required.
Flash Flood, Flood, Lakeshore Flood	damage and flood days (FIRM for depth)	80, 1996 to 2025 (20 zone-level)		Lakeshore Flood, 2011-05-01, \$5,000,000 property; \$0 crops, reported for the zone (2011 dollars); NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties		Event records naming places in the county (county page list): Richmond town (7 records), Bolton town (5 records), Burlington city (5 records), Charlotte town (5 records), Essex town (5 records), Hinesburg town (5 records), Shelburne town (5 records), South Burlington city (5 records), Underhill town (5 records), Williston town (5 records); and 4 more places (see the XLSX file). Zone-level records (20) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage can be \$0 or blank even for a major flood, so the worst record here may not be the worst flood; compare FEMA Public Assistance by declaration in B1-d.
Debris Flow	none (count and damage)	0					Physical measure: in event narratives only; local data required.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	Where in the county	Note
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	21, 1996 to 2020		Lightning, 2011-07-06, \$1,000,000 property; \$0 crops (2011 dollars)		Event records naming places in the county (county page list): Colchester town (4 records), Essex Junction village (2 records), Shelburne town (2 records), South Burlington city (2 records), Westford town (2 records), Williston town (2 records), Burlington city (1 record), Charlotte town (1 record), Jericho town (1 record), Milton town (1 record).	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)	107, 1996 to 2026 (105 zone-level)	30 kt (35 mph) to 76 kt (87 mph) (median 43 kt (49 mph)); 99 with a recorded value	76 kt (87 mph) estimated gust, High Wind, 2009-12-09; NWS zone VTZ017 (EASTERN CHITTENDEN), zone-level: may include parts of neighboring counties	High Wind, 2010-12-01, \$1,250,000 property; \$0 crops, reported for the zone (2010 dollars)	Event records naming places in the county (county page list): Burlington city (1 record). Zone-level records (105) apply countywide.	
Thunderstorm Wind	wind speed (kt and mph)	297, 1960 to 2025	40 kt (46 mph) to 70 kt (81 mph) (median 50 kt (58 mph)); 229 with a recorded value	70 kt (81 mph) estimated gust, Thunderstorm Wind, 2008-06-10; same speed and measurement basis also recorded on 2005-08-01	Thunderstorm Wind, 2014-07-08, \$500,000 property; \$0 crops (2014 dollars)	Event records naming places in the county (county page list): Colchester town (23 records), Milton town (23 records), Burlington city (19 records), Williston town (19 records), Essex town (16 records), Shelburne town (15 records), Charlotte town (14 records), Essex Junction village (14 records), Hinesburg town (12 records), Richmond town (12 records); and 7 more places (see the XLSX file).	
Tornado	Enhanced Fujita (F before Feb 2007)	5, 1953 to 1987	F/EF0 to F/EF2 (median F/EF1); 5 with a recorded value	F2 tornado, 1983-08-08, 0.2 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 10 yd wide, \$2,500,000 property; crops not recorded (1983 dollars)		No event record names a listed place in the county.	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.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	Where in the county	Note
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall local)	313, 1996 to 2026 (313 zone-level)		Heavy Snow, 2007-02-14, \$200,000 property; \$0 crops, reported for the zone (2007 dollars); NWS zone VTZ005 (WESTERN CHITTENDEN), 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.

Where a hazard names more than 10 member places, the table lists the 10 with the most records; every place is in the XLSX file, sheet "B1-c Extent".

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records 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

Inherited from Chittenden County, county-level (county FIPS 50007); scope: declarations, statewide block and Storm Events history.

Declaration rows32Counted incidents27

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
2024-08-20	2024-07-09	DR-4810-VT	Major disaster	SEVERE STORM, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding; Landslide	\$6,665,019.24	new since last plan; within last 5 years	
2024-08-08	2024-08-08	EM-3609-VT	Emergency	TROPICAL DEPRESSION DEBBY	Hurricane	none found	new since last plan; within last 5 years	
2024-04-19	2024-01-09	DR-4770-VT	Major disaster	SEVERE WINTER STORM	Winter Weather	\$38,069.91	new since last plan; within last 5 years	
2023-07-14	2023-07-07	DR-4720-VT	Major disaster	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide	\$5,199,321.15	new since last plan; within last 5 years	
2023-07-10	2023-07-09	EM-3595-VT	Emergency	FLOODING	Inland Flooding	none found	new since last plan; within last 5 years	same incident as DR-4720
2023-03-20	2022-12-22	DR-4695-VT	Major disaster	SEVERE STORM AND FLOODING	Inland Flooding	\$12,053.10	new since last plan; within last 5 years	
2021-08-22	2021-08-22	EM-3567-VT	Emergency	TROPICAL STORM HENRI	Hurricane	none found		
2020-04-08	2020-01-20	DR-4532-VT	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$29,607,392.18		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2020-03-13	2020-01-20	EM-3437-VT	Emergency	COVID-19	Non-natural, not counted	none found		same incident as DR-4532
2020-01-17	2019-10-31	DR-4474-VT	Major disaster	SEVERE STORM AND FLOODING	Inland Flooding	\$3,244,346.16		
2018-07-30	2018-05-04	DR-4380-VT	Major disaster	SEVERE STORM AND FLOODING	Inland Flooding	\$1,498,243.27		
2018-01-02	2017-10-29	DR-4356-VT	Major disaster	SEVERE STORM AND FLOODING	Inland Flooding	\$141,546.49		
2015-07-29	2015-06-09	DR-4232-VT	Major disaster	SEVERE STORM AND FLOODING	Inland Flooding	\$283,148.43		
2015-02-03	2014-12-09	DR-4207-VT	Major disaster	SEVERE WINTER STORM	Winter Weather	\$236,295.61		
2014-01-29	2013-12-20	DR-4163-VT	Major disaster	SEVERE WINTER STORMS	Ice Storm	\$68,376.63		
2013-08-02	2013-06-25	DR-4140-VT	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	\$1,254,214.15		
2013-06-13	2013-05-22	DR-4120-VT	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	\$1,436,953.12		
2011-09-01	2011-08-27	DR-4022-VT	Major disaster	TROPICAL STORM IRENE	Hurricane	\$333,686.18		
2011-08-29	2011-08-26	EM-3338-VT	Emergency	HURRICANE IRENE	Hurricane	none found		same incident as DR-4022
2011-06-15	2011-04-23	DR-1995-VT	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	\$2,460,958.28		
2010-12-22	2010-12-01	DR-1951-VT	Major disaster	SEVERE STORM	Hazard not mapped (severe storm title names no single hazard); not counted	\$124,721.47		
2004-09-23	2004-08-12	DR-1559-VT	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	\$279,588.24		
2001-04-10	2001-03-05	EM-3167-VT	Emergency	SNOW	Winter Weather	\$189,099.54		
1998-06-30	1998-06-17	DR-1228-VT	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	none found		
1998-01-15	1998-01-06	DR-1201-VT	Major disaster	SEVERE ICE STORMS, RAIN, HIGH WINDS AND FLOODING	Ice Storm; Inland Flooding; Strong Wind	none found		
1996-02-13	1996-01-19	DR-1101-VT	Major disaster	ICE JAMS AND FLOODING	Inland Flooding (primary); also designated: Winter Weather	none found		
1995-08-16	1995-08-04	DR-1063-VT	Major disaster	EXCESSIVE RAINFALL, FLOODING	Inland Flooding	none found		
1993-05-12	1993-04-24	DR-990-VT	Major disaster	HEAVY RAIN, SNOWMELT & FLOODING	Inland Flooding	none found		
1992-03-18	1992-03-11	DR-938-VT	Major disaster	HEAVY RAINS, ICE JAMS & FLOODING	Inland Flooding	none found		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1990-07-25	1990-07-04	DR-875-VT	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	none found		
1976-08-05	1976-08-05	DR-518-VT	Major disaster	SEVERE STORMS, HIGH WINDS & FLOODING	Inland Flooding (primary); also designated: Strong Wind	none found		
1973-07-06	1973-07-06	DR-397-VT	Major disaster	SEVERE STORMS, FLOODING, & LANDSLIDES	Inland Flooding (primary); also designated: Landslide	none found		

County Public Assistance: applicants the FEMA record places in this county, including any state agencies FEMA files there; statewide rows are listed on the state page; federal share obligated, nominal dollars. Dollars are nominal (as reported), labeled with the year; not adjusted for inflation.

The County Public Assistance column is the whole county's, including any state agencies FEMA files there; this town's own matched Public Assistance is in the per-member block (B1-f).

SOURCES

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

Statewide declarations

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	Flags	Notes
1964-03-17	1964-03-17	DR-164-VT	Major disaster	FLOODING	Inland Flooding		
1963-11-27	1963-11-27	DR-160-VT	Major disaster	DROUGHT & IMPENDING FREEZE	Drought		

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)

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	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Cold Wave	34	5	5	10	0	0	1996 to 2026-06-30	Includes 5 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
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	136	5	1	6	0	0	1955 to 2026-06-30	
Heat Wave	12	1	0	1	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
Hurricane	0	0	0	0	3	1	1996 to 2026-06-30	No Storm Events records of this type; 3 federal declared incidents (see declarations table)
Ice Storm	3	0	0	0	2	0	1996 to 2026-06-30	
Inland Flooding	80	8	0	8	20	3	1996 to 2026-06-30	
Landslide	0	0	0	0	3	2	1996 to 2026-06-30	No Storm Events records of this type; 3 federal declared incidents (see declarations table)
Lightning	21	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	404	31	15	48	2	0	1955 to 2026-06-30	Includes 52 High Wind records and 55 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	5	0	0	0	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	313	39	10	49	4	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
2023-05-18	Frost/Freeze		\$0 property; \$1,500,000 crops, reported for the zone (2023 dollars)	0, 0	NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	B1-c worst recorded: Frost/Freeze (outside NRI Cold Wave definition)
2020-06-18	Heat		\$0 property; \$0 crops, reported for the zone (2020 dollars)	0, 0	NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Excessive Heat, Heat
2019-07-30	Thunderstorm Wind	50 kt (58 mph) estimated gust	\$25,000 property; \$0 crops (2019 dollars)	2, 0	CHAMPLAIN ARPT		deaths or injuries recorded

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Direct deaths, injuries <i>indirect not counted</i>	Location	Flags	Why listed
2015-02-01	Cold/Wind Chill		\$0 property; \$0 crops, reported for the zone (2015 dollars)	0, 0	NWS zone VTZ017 (EASTERN CHITTENDEN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2012-12-21	Strong Wind	43 kt (49 mph) estimated gust	\$35,000 property; \$0 crops, reported for the zone (2012 dollars)	1, 0	NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties		deaths or injuries recorded
2011-07-06	Lightning		\$1,000,000 property; \$0 crops (2011 dollars)	0, 0	ESSEX JCT		B1-c worst recorded: Lightning
2011-05-01	Lakeshore Flood		\$5,000,000 property; \$0 crops, reported for the zone (2011 dollars)	0, 0	NWS zone VTZ005 (WESTERN CHITTENDEN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2011-04-11	Flood		\$30,000 property; \$0 crops (2011 dollars)	1, 0	NORTH UNDERHILL to BOWMAN CORNERS		deaths or injuries recorded
2009-12-09	High Wind	76 kt (87 mph) estimated gust	\$20,000 property; \$0 crops, reported for the zone (2009 dollars)	0, 0	NWS zone VTZ017 (EASTERN CHITTENDEN), zone-level: may include parts of neighboring counties		B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
2008-06-10	Thunderstorm Wind	70 kt (81 mph) estimated gust	\$20,000 property; \$0 crops (2008 dollars)	0, 0	NORTH UNDERHILL		B1-c worst recorded: Thunderstorm Wind
1998-01-06	Ice Storm		\$2,500,000 property; crops not reported, reported for the zone (1998 dollars)	0, 1	NWS zone VTZ005 (CHITTENDEN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Ice Storm
1983-08-08	Tornado	F2, 0.2 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 10 yd wide	\$2,500,000 property; crops not recorded (1983 dollars)	0, 0	location not recorded		B1-c worst recorded: Tornado

The full list is in the **XLSX** file, sheet "**B1-d Storm Events history**" (1,008 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.

FEMA's declaration data list no tribal or special-area declarations for this state.

Supports B1-e: probability

Inherited from Chittenden County, county-level (county FIPS 50007); scope: whole section.

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	0.0333	events per year	about 1 in 30 years	Possible	FEMA annualized frequency (modeled)	1	1994 to 2023 (30 years)	see B1-f	
Coastal Flooding		events per year at a location (modeled)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Cold Wave	3.47	event-days per year	about 3.47 days per year	Likely	event-days in 12 of 30 years, 1996 to 2025 (40%)	65	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 3.47 cold 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 12 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. Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.
Drought	0	event-days per year	none modeled		event-days in 0 of 30 years, 1996 to 2025 (0%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No recorded event-days, 1996 to 2025; descriptor not assigned
Earthquake	0.00278	annual probability at a location	chance a given location in the county has at least minor- damage shaking in a year: 0.278%			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	1.12	events per year	about 1.12 per year	Highly likely	FEMA annualized frequency (modeled)	42.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	2.07	event-days per year	about 2.07 days per year	Likely	event-days in 8 of 30 years, 1996 to 2025 (26.7%)	37.7	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 2.07 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 8 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	0.0262	events per year	about 1 in 38 years	Possible	FEMA annualized frequency (modeled)	8	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.

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
Ice Storm	0.329	event-days per year	about 0.329 days per year	Possible	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	23	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	2.14	event-days per year	about 2.14 days per year	Likely	event-days in 23 of 30 years, 1996 to 2025 (76.7%)	60	1996 to 2023 (28 years)	see B1-f	
Landslide	0.814	events per year (modeled)	about 0.81 per year	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	23	days per year with a strike	about 23 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.776	events per year	about 0.78 per year	Likely	FEMA annualized frequency (modeled)	30	1986 to 2023 (38 years)	countywide	
Tornado	0.0282	events per year	about 1 in 35 years	Possible	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Volcanic Activity		annual probability				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Wildfire	0.0000725	annual probability at a location	chance a given location in the county burns in a year: 0.00725%		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	16.9	event-days per year	about 16.9 days per year	Highly likely	event-days in 30 of 30 years, 1996 to 2025 (100%)	317	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	62	30	2.07
Hail	2.00 in+	1996 to 2025	2	30	0.0667
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	214	30	7.13
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	28	30	0.933
Tornado	EF0-1	1996 to 2025	0	30	0
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

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

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

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

Supports B1-f: variation across the planning area

Range of census tract risk within the county

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Avalanche	5 of 41	73.6	73.9	74.2	Relatively Low 5, Not Applicable 36	
Coastal Flooding	0 of 41				Not Applicable 41	
Cold Wave	41 of 41	15.7	37.2	57.6	Relatively Moderate 4, Relatively Low 36, 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.
Drought	0 of 41				No Rating 41	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.
Earthquake	41 of 41	19.9	45.7	82.1	Relatively Moderate 2, Relatively Low 28, Very Low 11	
Hail	41 of 41	1.1	29.0	42.0	Relatively Low 3, Very Low 38	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	41 of 41	1.4	45.3	75.8	Relatively Moderate 8, Relatively Low 29, Very Low 4	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	41 of 41	35.8	52.0	67.1	Relatively Low 22, Very Low 19	
Ice Storm	41 of 41	14.3	65.5	92.4	Relatively High 2, Relatively Moderate 15, Relatively Low 23, 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.
Inland Flooding	41 of 41	0.6	35.7	91.0	Relatively High 2, Relatively Moderate 13, Relatively Low 22, Very Low 4	
Landslide	41 of 41	12.8	58.4	97.0	Relatively Moderate 1, Relatively Low 7, Very Low 33	
Lightning	41 of 41	0.7	76.0	95.7	Relatively High 17, Relatively Moderate 20, Relatively Low 3, 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	41 of 41	9.9	55.9	85.0	Relatively High 1, Relatively Moderate 22, Relatively Low 17, 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.
Tornado	41 of 41	1.9	28.5	42.9	Relatively Low 16, Very Low 25	
Tsunami	0 of 41				Not Applicable 41	
Volcanic Activity	0 of 41				Not Applicable 41	

Hazard	Tracts rated of all	Risk score				Note
		min NRI score, 0 to 100	Median	Max	Tracts by rating	
Wildfire	38 of 41	19.2	46.6	74.4	Relatively Low 2, Very Low 36, No Rating 3	
Winter Weather	41 of 41	20.5	78.5	94.7	Relatively High 20, Relatively Moderate 20, Relatively Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.

County tracts, shown for context: this town's planning area is the town, which the county tracts do not split out.

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	Public Assistance matched	Event records naming this place	Notes
			FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition	federal share obligated, nominal dollars	all years; since the member's plan	
Richmond town	Town	Approved, expires 2027-11-10	FMA RL 0, SRL 1; any 5	\$4,999,564.92	23; 3	

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

Inherited from Chittenden County, county-level (county FIPS 50007); scope: NRI exposure and expected annual loss; since-plan figures use the town's own approval date.

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

Chittenden County, county-level

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 2022-11-11 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Avalanche	\$172,968		5	under \$1		\$456,666	0.0001%				
Coastal Flooding											Not Applicable in NRI for this county
Cold Wave	\$40,414,880,347	\$56,100,811	168,162	\$6,086	\$77,432	\$1,503,744	under 0.0001%		\$1,500,000		Storm Events damage since the plan includes 1 zone-level Frost/Freeze record (\$1,500,000), an event type the NRI definition of this hazard leaves out.
Drought		\$0				\$0					agriculture exposure is 0 in NRI
Earthquake	\$70,812,620,784		168,323	\$1,833,011		\$314,944	0.00259%				
Hail	\$40,414,880,347	\$56,100,811	168,162	\$12,645	\$7,277	\$78,688	under 0.0001%	\$20,000			
Heat Wave	\$40,414,880,347	\$56,100,811	168,162	\$1	\$37,686	\$1,759,734	under 0.0001%		\$0		
Hurricane	\$40,397,757,407	\$56,084,440	168,041	\$606,338	\$26,484	\$28,240	0.0015%			none found (1 declaration)	
Ice Storm	\$40,413,608,910		168,153	\$540,984		\$59,687	0.00134%				
Inland Flooding	\$40,373,970,472	\$15,673,575	1,651	\$28,508,887	\$67,191	\$221,627	n/a (see note)	\$920,000		\$11,876,393.49	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	\$1,278,020,800		5,344	\$11,303		\$7,061	0.000884%			\$11,864,340.39	
Lightning	\$40,414,880,347		168,162	\$90,828		\$1,327,077	0.000225%				
Strong Wind	\$40,414,880,347	\$56,100,811	168,162	\$548,593	\$7,299	\$666,883	0.00136%	\$115,000	\$925,000		Storm Events damage since the plan includes 4 zone-level High Wind records (\$840,000) and 3 zone-level Strong Wind records (\$85,000), event types the NRI definition of this hazard leaves out.
Tornado	\$40,414,880,347	\$56,100,811	168,162	\$232,690	\$95	\$614,136	0.000576%				

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>modeled buildings; agriculture where noted</i>	Storm Events damage since 2022-11-11 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Tsunami											Not Applicable in NRI for this county
Volcanic Activity											Not Applicable in NRI for this county
Wildfire	\$4,411,880,493	\$12,939,115	26,460	\$16,249	\$8	\$2,328	0.000368%				
Winter Weather	\$40,414,880,347	\$56,100,811	168,162	\$151,031	\$69	\$313,954	0.000374%		\$0	\$38,069.91	

Every dollar figure in this table is for the whole county; only the since-plan date is the town's own approval date.

Totals since 2022-11-11 (Storm Events through 2026-06-30): 34 county-coded records, 34 with a damage value recorded (including \$0), \$1,055,000; 55 zone-level records, 55 with a damage value recorded (including \$0), \$2,425,000 reported for the zone; Public Assistance on counted declarations \$11,914,463.40 (6 declarations, 4 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)

Vermont Flood Ready Atlas and ANR river corridors for town flood and erosion locations.

ERA5 Flood Hazard Summary gives E911 building counts in the SFHA per town.

Vermont Dam Inventory for dams in and upstream of the town.

VEM hazard mitigation planning resources and the 2023 Vermont State Hazard Mitigation Plan. <https://vem.vermont.gov/hm-planning-resources>

Supports B2-a: context

Inherited from Chittenden County, county-level (county FIPS 50007); scope: whole section.

County context

Measure	Value
Population	168,162
Building value (total, not at risk)	\$40,414,880,347

Measure	Value
Agriculture value (total, not at risk)	\$56,100,811
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$32,782,186
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)	\$7,354,769
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

Chittenden County, county-level

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	1	Severe repetitive loss, FMA definition (44 CFR 77.2)	2
Repetitive loss, NFIP insurance definition	14	Severe repetitive loss, NFIP insurance definition	1

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 total and NFIP communities

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	1	2	14	1	14	0	8
COLCHESTER, TOWN OF	0	0	1	0	1	0	0
HUNTINGTON, TOWN OF	0	0	2	0	2	0	2
JERICO, TOWN OF	0	0	1	0	1	0	0
MILTON, TOWN OF	0	0	2	0	2	0	1
RICHMOND, TOWN OF	0	1	5	1	5	0	4
UNDERHILL, TOWN OF	0	0	1	0	1	0	0
BOLTON, TOWN OF	1	1	2	0	2	0	1

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
Richmond town	500040	0	1	5	1	5	0	4	

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

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

SOURCES

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

County repeat-flood properties by occupancy group

Occupancy group	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
single-family residential	1	1	9	0	9	0	6
2 to 4 unit residential	0	1	2	1	2	0	1
other residential	0	0	1	0	1	0	1
non-residential	0	0	2	0	2	0	0
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 fmaRl field description omits the Increased Cost of Compliance clause of 44 CFR 77.2(i). NFIP repetitive loss (FEMA insurance definition, nfipRl) 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 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 13 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_cousubs_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_scscd_national.zip, https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx

OpenFEMA disclaimer

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

Hazard Plain is an independent product built from public federal data. It is not a FEMA document and is not reviewed or endorsed by FEMA or any state agency.

Reuse, citation and corrections

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

Cite this: Hazard Plain (2026). Richmond town, VT: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-28; Vermont town 5000759275). Preview: automated baseline. Built from FEMA OpenFEMA, the FEMA National Risk Index and NOAA NCEI Storm Events; source versions in the packet's Sources list.

Corrections: to report an error, name the packet, the table and what your records show. Contact: to be added

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File `hazard-plain_2026-10_VT_5000759275`. Preview: automated baseline.