

South Hero town, VT

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

Town FIPS: 5001367000 Release: 2026-10 Data as of: 2026-09-30 Storm Events data through: 2026-06-30

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

Summary

Plan status as of 2026-09-30: Expired on 2023-07-15. Plan: Town of South Hero, Vermont HAZARD MITIGATION PLAN 2018 (FEMA plan 104992), approved 2018-07-16. Sections B1-a, B1-b, B1-c, B1-d, B1-e, B2-a and B2-b use Grand Isle County data (county FIPS 50013; each heading says so); the plan clock, B1-f and B2-c are for South Hero town.

Since the plan was approved on 2018-07-16: 6 new hazard declarations (5 incidents) and 92 NOAA Storm Events records (county-level); details under "What changed since your last plan".

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$3,140,357 a year), Strong Wind (\$172,409) and Earthquake (\$160,717).

The tables that follow are organized by the items of FEMA's Local Mitigation Plan Review Tool, Element B (B1-a to B2-c); each heading says which item its tables support.

TERMS USED

EAL: expected annual loss: FEMA's modeled average yearly loss from a hazard.

NRI: FEMA's National Risk Index (version 1.20, December 2025).

NFIP: National Flood Insurance Program.

RL, SRL: repetitive loss and severe repetitive loss: flood-insured properties with repeated claims (definitions in B2-c).

FMA, HMGP: Flood Mitigation Assistance and Hazard Mitigation Grant Program, FEMA mitigation grants.

PA: FEMA Public Assistance: disaster aid to governments and some nonprofits.

Zone-level: NOAA logged the event for a National Weather Service forecast zone, which may include parts of neighboring counties.

County-coded: NOAA logged the event to this county.

FIPS: the federal code for a place; 5001367000 is this town.

D0 to D4: U.S. Drought Monitor categories, from abnormally dry (D0) to exceptional drought (D4).

F/EF, EFU: Fujita and Enhanced Fujita tornado ratings; EFU is an unrated tornado.

kt, CONUS: knots (1 kt is about 1.15 mph); the contiguous United States.

CFR: Code of Federal Regulations.

A4-a, E1-a: other items of FEMA's Local Mitigation Plan Review Tool (sources, and changes since the last plan).

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

CONTENTS

1. Summary and terms used, page 1
2. Plan clock, page 2
3. What changed since your last plan (approved 2018-07-16), page 2
4. B1-a: hazard identification, page 3
5. B1-b: hazard location, page 4
6. B1-c: hazard extent, page 5
7. B1-d: previous occurrences, page 7
8. B1-e: probability of future events, page 11
9. B1-f: hazards that vary across jurisdictions, page 13
10. B2-a and B2-b: vulnerability and potential impacts, page 15
11. B2-a: vulnerability (county context), page 17
12. B2-c: repetitive loss properties, page 17
13. Sources, what the plan adds, disclaimer and citation, page 18

Plan clock

Status:	Expired on 2023-07-15	Plan:	Town of South Hero, Vermont HAZARD MITIGATION PLAN 2018 (FEMA plan 104992)
Approved:	2018-07-16	Days since expiry:	1,173
Update underway:	none recorded in FEMA's plan tracker		

Until a new plan is approved, FEMA mitigation project grants (HMGP, FMA) need a FEMA exception (44 CFR 201.6(a)(3)).

What changed since your last plan (approved 2018-07-16)

New federal declarations:
6 new hazard declarations (5 incidents): DR-4380-VT (Severe Storm and Flooding), EM-3567-VT (Tropical Storm Henri), DR-4695-VT (Severe Storm and Flooding), EM-3595-VT (Flooding), DR-4720-VT (Severe Storms, Flooding, Landslides, and Mudslides), EM-3609-VT (Tropical Depression Debby); also 2 COVID-19 declarations (not counted)

Repetitive loss now (this town):
FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 0

Storm Events records since approval (Grand Isle County, county-level):
92 records (data through 2026-06-30)

Repeat-flood change:
this release sets the baseline count.

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

Plan status for this town

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry negative = days since expiry
South Hero town	Town	Expired on 2023-07-15	Town of South Hero, Vermont HAZARD MITIGATION PLAN 2018 (FEMA plan 104992)	2018-07-16	2023-07-15	-1,173

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

Supports FEMA checklist item B1-a: hazard identification

County-level: Grand Isle County.

Hazards NRI does not cover (local data needed)

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

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

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Very Low	Very Low	\$3,130,469	\$787	\$9,101	\$3,140,357	13	
2	Strong Wind	Very Low	Relatively Low	\$40,590	\$6,490	\$125,329	\$172,409	91	Includes 12 High Wind and 33 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
3	Earthquake	Very Low	Very Low	\$150,945	n/a	\$9,772	\$160,717		Storm Events does not record earthquakes.
4	Lightning	Very Low	Relatively Low	\$89,748	n/a	\$54,192	\$143,940	6	
5	Cold Wave	Very Low	Very Low	\$63	\$7,723	\$82,430	\$90,216	29	Includes 3 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
6	Ice Storm	Relatively Low	Relatively Low	\$76,073	n/a	\$4,998	\$81,072	3	
7	Heat Wave	Very Low	Very Low	under \$1	\$25,124	\$34,545	\$59,669	7	
8	Hurricane	Very Low	Very Low	\$31,363	\$7,824	\$875	\$40,062	0	Declared 3 times; no Storm Events record of this type.
9	Tornado	Very Low	Very Low	\$14,798	\$33	\$20,024	\$34,856	0	Declared 1 time; no Storm Events record of this type.
10	Winter Weather	Very Low	Relatively Low	\$19,601	\$20	\$11,807	\$31,428	193	
11	Hail	Very Low	Very Low	\$801	\$1,639	\$2,590	\$5,030	17	
12	Wildfire	Very Low	Very Low	\$2,604	\$3	\$261	\$2,868	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
13	Landslide	Very Low	Very Low	\$11	n/a	\$26	\$37	0	Declared 2 times; no Storm Events record of this type.
14	Drought	No Rating	No Expected Annual Losses	n/a	\$0	n/a	\$0	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

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

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

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

Supports FEMA checklist item B1-b: hazard location

County-level: Grand Isle County.

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

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

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

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 201 (Relatively Low, 71.0); tract 202 (Relatively Low, 64.0)
Hurricane	tract 201 (Relatively Low, 55.9); tract 202 (Relatively Low, 55.9)
Landslide	tract 201 (Very Low, 67.4); tract 202 (Very Low, 66.1)
Tornado	tract 202 (Very Low, 28.0); tract 201 (Very Low, 28.0)
Wildfire	tract 202 (Relatively Low, 72.5); tract 201 (Very Low, 59.4)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 201 is Census Tract 201). FEMA's Resilience Analysis and Planning Tool maps the National Risk Index for every tract: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

Supports FEMA checklist item B1-c: hazard extent

County-level: Grand Isle County.

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

Sources: 6, 7

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	Where in the county	Note
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	26 records, 1997 to 2026 (26 zone-level)	1 day to 28 days (median 2 days); 25 with a recorded value	February 2015 (1 monthly summary record), zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	3 records, 2005 to 2012 (3 zone-level)		Frost/Freeze, 2012-04-28, \$100,000 crop damage (2012 dollars); NWS zone VTZ001		Countywide (zone-level records).	
Drought	U.S. Drought Monitor scale (D0 to D4)	0					Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	18 records, 1980 to 2023	0.25 in to 1.75 in (median 0.88 in); 18 with a recorded value	1.75 in hail, 2013-09-11; same size also recorded on 2005-07-22	Hail, 2010-07-21, \$0 property; \$25,000 crops (2010 dollars)	Event records naming places in the county: Grand Isle town (4 records), North Hero town (3 records), South Hero town (3 records), Isle La Motte town (1 record).	
Excessive Heat, Heat	heat index (in event narratives)	7 records, 2006 to 2025 (7 zone-level)	1 day to 6 days (median 3 days); 6 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 (zone total, 2012 dollars)	Countywide (zone-level records).	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 type; flooding from the storm is filed as Flood or Flash Flood records.
Ice Storm	Sperry-Piltz ice scale (local data)	3 records, 1998 to 2020 (3 zone-level)		Ice Storm, 1998-01-06, \$1,500,000 property; crops not reported (1998 dollars); NWS zone VTZ001		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	13 records, 1996 to 2011 (11 zone-level)		Lakeshore Flood, 2011-05-01, \$3,000,000 property; \$0 crops (2011 dollars); NWS zone VTZ001		Event records naming places in the county: South Hero town (1 record). Zone-level records (11) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	Where in the county	Note
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	6 records, 1998 to 2019		Lightning, 2016-06-28, \$1,700,000 property; \$0 crops (2016 dollars)		Event records naming places in the county: Grand Isle town (2 records), South Hero town (2 records), North Hero town (1 record).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	45 records, 1996 to 2026 (43 zone-level)	30 kt (35 mph) to 56 kt (64 mph) (median 43 kt (49 mph)); 42 with a recorded value	56 kt (64 mph) estimated gust, High Wind, 2011-08-28; NWS zone VTZ001		Event records naming places in the county: North Hero town (1 record). Zone-level records (43) apply countywide.	
Thunderstorm Wind	wind speed (kt and mph)	62 records, 1958 to 2025	50 kt (58 mph) to 70 kt (81 mph) (median 50 kt (58 mph)); 41 with a recorded value	70 kt (81 mph) estimated gust, Thunderstorm Wind, 2007-08-16		Event records naming places in the county: Grand Isle town (10 records), North Hero town (9 records), South Hero town (6 records), Isle La Motte town (4 records), Alburgh town (1 record).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	0					Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	193 records, 1996 to 2026 (193 zone-level)		Winter Storm, 2001-03-05, \$75,000 property; crops not reported (2001 dollars); NWS zone VTZ001	Heavy Snow, 2007-02-14, \$75,000 property; \$0 crops (zone total, 2007 dollars)	Countywide (zone-level records).	

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

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

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

A monthly summary record covers most or all of a month; it does not count days at wave conditions.

Supports FEMA checklist item B1-d: previous occurrences

County-level: Grand Isle County (federal declarations, statewide declarations and Storm Events history).

Federal declarations for this county: 18 declarations covering 14 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2024-08-08	2024-08-08	EM-3609-VT	Emergency	Tropical Depression Debby	Hurricane	no Public Assistance recorded	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	no Public Assistance recorded	new since last plan; within last 5 years	
2023-07-10	2023-07-09	EM-3595-VT	Emergency	Flooding	Inland Flooding	no Public Assistance recorded	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	no Public Assistance recorded	new since last plan; within last 5 years	
2021-08-22	2021-08-22	EM-3567-VT	Emergency	Tropical Storm Henri	Hurricane	no Public Assistance recorded	new since last plan	
2020-04-08	2020-01-20	DR-4532-VT	Major disaster	COVID-19 Pandemic	Non-natural, not counted	no Public Assistance recorded	new since last plan	
2020-03-13	2020-01-20	EM-3437-VT	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	new since last plan	same incident as DR-4532
2018-07-30	2018-05-04	DR-4380-VT	Major disaster	Severe Storm and Flooding	Inland Flooding	no Public Assistance recorded	new since last plan	
2018-01-02	2017-10-29	DR-4356-VT	Major disaster	Severe Storm and Flooding	Inland Flooding	no Public Assistance recorded	in the 12 months before plan approval	
2014-01-29	2013-12-20	DR-4163-VT	Major disaster	Severe Winter Storms	Ice Storm	no Public Assistance recorded		
2011-09-01	2011-08-27	DR-4022-VT	Major disaster	Tropical Storm Irene	Hurricane	no Public Assistance recorded		
2011-08-29	2011-08-26	EM-3338-VT	Emergency	Hurricane Irene	Hurricane	no Public Assistance recorded		same incident as DR-4022
2011-06-15	2011-04-23	DR-1995-VT	Major disaster	Severe Storms and Flooding	Inland Flooding	\$642,564.40		
2008-08-15	2008-07-18	DR-1784-VT	Major disaster	Severe Storms, a Tornado, and Flooding	Inland Flooding; Tornado	\$112,501.58		
2001-04-10	2001-03-05	EM-3167-VT	Emergency	Snow	Winter Weather	\$14,166.47		
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	no Public Assistance recorded		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1993-05-12	1993-04-24	DR-990-VT	Major disaster	Heavy Rain, Snowmelt & Flooding	Inland Flooding	no Public Assistance recorded		
1973-07-06	1973-07-06	DR-397-VT	Major disaster	Severe Storms, Flooding, & Landslides	Inland Flooding (primary); also designated: Landslide	no Public Assistance recorded		

County Public Assistance: the whole county's applicants, including state agencies FEMA files there (federal share obligated, nominal dollars); statewide rows are on the state page; this town's own matched Public Assistance is in B1-f.

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
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, so they are listed on every county page in the state and not counted with county rows. Local data needed: whether each one affected this county.

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Cold Wave	29	8	0	8	0	0	1996 to 2026-06-30	Includes 3 Frost/Freeze records.
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		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	18	2	0	2	0	0	1955 to 2026-06-30	
Heat Wave	7	3	1	1	0	0	1996 to 2026-06-30	
Hurricane	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)
Ice Storm	3	1	0	0	2	0	1996 to 2026-06-30	
Inland Flooding	13	0	0	0	9	3	1996 to 2026-06-30	
Landslide	0	0	0	0	2	1	1996 to 2026-06-30	No Storm Events records of this type; 2 federal declared incidents (see declarations table)
Lightning	6	1	0	0	0	0	1996 to 2026-06-30	

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Strong Wind	107	25	3	16	1	0	1955 to 2026-06-30	Includes 12 High Wind and 33 Strong Wind records.
Tornado	0	0	0	0	1	0	1950 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
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	193	52	8	34	1	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2020-06-18	Heat		\$0 property; \$0 crops (zone total, 2020 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level	new since last plan	B1-c worst recorded: Excessive Heat, Heat
2016-06-28	Lightning		\$1,700,000 property; \$0 crops (2016 dollars)	0, 0	KEELER BAY		B1-c worst recorded: Lightning
2015-02-01	Cold/Wind Chill		\$0 property; \$0 crops (zone total, 2015 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2013-09-11	Hail	1.75 in	\$10,000 property; \$0 crops (2013 dollars)	0, 0	ALBURG		B1-c worst recorded: Hail
2012-04-28	Frost/Freeze		\$0 property; \$100,000 crops (zone total, 2012 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: Frost/Freeze
2011-08-28	High Wind	56 kt (64 mph) estimated gust	\$750,000 property; \$250,000 crops (zone total, 2011 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: High Wind and Strong Wind
2011-05-01	Lakeshore Flood		\$3,000,000 property; \$0 crops (zone total, 2011 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2007-08-16	Thunderstorm Wind	70 kt (81 mph) estimated gust	\$250,000 property; \$0 crops (2007 dollars)	0, 0	GRAND ISLE		B1-c worst recorded: Thunderstorm Wind
2004-06-26	Strong Wind	40 kt (46 mph) estimated gust	\$20,000 property; crops not reported (zone total, 2004 dollars)	1, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		deaths or injuries recorded
2001-03-05	Winter Storm		\$75,000 property; crops not reported (zone total, 2001 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
1998-01-06	Ice Storm		\$1,500,000 property; crops not reported (zone total, 1998 dollars)	0, 0	NWS zone VTZ001 (GRAND ISLE), zone-level		B1-c worst recorded: Ice Storm
1987-06-08	Thunderstorm Wind	speed not recorded	damage not recorded (pre-1996 record)	0, 1	location not recorded		deaths or injuries recorded

The full list is in the Excel file, sheet "B1-d Storm Events history" (376 rows).

Location is the place NOAA recorded, as written in its data; it need not be a jurisdiction in this plan.

Local data needed: state-declared emergencies, from your state emergency management agency (federal data do not include them).

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

Supports FEMA checklist item B1-e: probability of future events

County-level: Grand Isle County.

Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Cold Wave	3.05	event-days per year	about 3.05 days per year	Likely	Storm Events event-days in 11 of 30 years, 1996 to 2025 (36.7%)	57.7	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0	event-days per year	none modeled		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.00297	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.297%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	0.893	events per year	about 0.89 per year	Likely	FEMA annualized frequency (modeled)	35.2 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	2.16	event-days per year	about 2.16 days per year	Likely	Storm Events event-days in 6 of 30 years, 1996 to 2025 (20%)	37.8	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0.0208	events per year	about 1 in 48 years	Possible	FEMA annualized frequency (modeled)	4	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.491	event-days per year	about 0.491 days per year	Likely	Storm Events event-days in 3 of 30 years, 1996 to 2025 (10%)	31	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.429	event-days per year	about 0.429 days per year	Likely	Storm Events event-days in 5 of 30 years, 1996 to 2025 (16.7%)	12	1996 to 2023 (28 years)	see B1-f	
Landslide	0.0245	events per year (modeled)	about 1 in 41 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	22.5	days per year with a strike	about 22.5 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.616	events per year	about 0.62 per year	Likely	FEMA annualized frequency (modeled)	25	1986 to 2023 (38 years)	countywide	

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Tornado	0.00686	events per year	about 1 in 146 years	Unlikely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Wildfire	0.0000874	annual probability at a location	chance a given location in the county burns in a year: 0.00874%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Winter Weather	13.8	event-days per year	about 13.8 days per year	Highly likely	Storm Events event- days in 30 of 30 years, 1996 to 2025 (100%)	262	2005-11-12 to 2024-11-12 (19 years)	countywide	

FEMA annualized frequency (modeled) is the National Risk Index v1.20 (December 2025) estimate of how often a hazard affects this county in a year; it is not recorded events divided by years, and its unit differs by hazard (events, event-days, or days with a lightning strike per year). For earthquake, wildfire, coastal flooding and tsunami the value is the chance (or number of events) at a location in the county, not across the county, so no "1 in N years" is given and the descriptor comes from Storm Events where it has a record (none for earthquake). The Methods page gives each hazard's method, from FEMA's National Risk Index Technical Documentation v1.20.

Where NRI gives event-days, the descriptor comes from the share of years with a Storm Events record; NRI's source records more events, so the two differ.

Descriptor scale used in this packet (defined per unit)

Sources: 5, 6

Unit	Descriptor	Definition
events per year	Highly likely	1 or more per year
events per year	Likely	about once in 1 to 10 years
events per year	Possible	about once in 10 to 100 years
events per year	Unlikely	less than once in 100 years
annual probability	Likely	10% to under 100% chance in a given year
annual probability	Possible	1% to under 10% chance in a given year
annual probability	Unlikely	under 1% chance in a given year
event-days (share of years)	Highly likely	event-days recorded in 90% or more of years
event-days (share of years)	Likely	event-days recorded in 10% to under 90% of years
event-days (share of years)	Possible	event-days recorded in some years but under 10% of years
lightning strike-days	Highly likely	cloud-to-ground strikes on 1 or more days per year

Intensity bands: historical frequency (Storm Events)

Source: 6

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Hail	1.00-1.99 in	1996 to 2025	8	30	0.267
Hail	2.00 in+	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	38	30	1.27
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	3	30	0.1
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	5	30	0.167
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

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Cold Wave	2 of 2	42.0	43.6	45.1	Relatively Low 2
Drought	0 of 2				No Rating 2
Earthquake	2 of 2	64.0	67.5	71.0	Relatively Low 2
Hail	2 of 2	30.9	31.1	31.2	Very Low 2
Heat Wave	2 of 2	32.2	36.7	41.3	Relatively Low 2
Hurricane	2 of 2	55.9	55.9	55.9	Relatively Low 2
Ice Storm	2 of 2	88.4	90.5	92.7	Relatively High 1, Relatively Moderate 1
Inland Flooding	2 of 2	81.6	86.0	90.4	Relatively High 2
Landslide	2 of 2	66.1	66.8	67.4	Very Low 2
Lightning	2 of 2	94.6	94.8	95.0	Relatively High 2
Strong Wind	2 of 2	85.6	86.4	87.1	Relatively High 2

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Tornado	2 of 2	28.0	28.0	28.0	Very Low 2
Wildfire	2 of 2	59.4	65.9	72.5	Relatively Low 1, Very Low 1
Winter Weather	2 of 2	86.8	87.4	87.9	Relatively High 2

Grand Isle County's 2 census tracts; NRI rates census tracts, not towns.

Rated tracts only: No Rating (score 0.0), Not Applicable and Insufficient Data tracts are counted but not used for the minimum, median and maximum.

The score ranks a tract against all U.S. tracts (100 = highest). The rating is FEMA's category for the tract's risk value, computed differently, so the two can disagree.

Frequency data for cold wave, hail, heat wave, ice storm, lightning, strong wind and winter weather are county-wide or coarse (49 km grid or NWS zone), the same for every jurisdiction; the tract range mostly reflects where buildings and people are.

This county has 2 census tracts; the minimum, median and maximum come from those 2.

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	<i>all years; since its plan</i>
South Hero town	Town	Expired on 2023-07-15	FMA RL 0, SRL 0; any 0	\$124,419.69	12 total; 2 since its plan

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

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

County-level: Grand Isle County (National Risk Index exposure and expected annual loss; since-plan counts use South Hero town's approval date).

Local data needed

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

- Critical facilities and lifelines per hazard
- A problem statement per jurisdiction per hazard
- Changes in development in hazard-prone areas since the last approval, or a statement of none (E1-a)
- Future assets
- Vermont Flood Ready Atlas and Agency of Natural Resources (ANR) river corridors for town flood and erosion locations.
- The Emergency Relief and Assistance Fund (ERAF) Flood Hazard Summary gives E911 building counts in the Special Flood Hazard Area (SFHA) per town.
- Vermont Dam Inventory for dams in and upstream of the town.
- Vermont Emergency Management (VEM) hazard mitigation planning resources and the 2023 Vermont State Hazard Mitigation Plan. <https://vem.vermont.gov/hm-planning-resources>

County-level starter: exposure, expected annual loss and damage since the plan (Grand Isle County, county-level)

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

Hazard	Building exposure modeled dollars	Agriculture exposure modeled dollars	Population exposed people	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure buildings; agriculture where noted	Storm Events damage since 2018-07-16 county-coded records, property plus crops, nominal dollars	Zone-level damage since plan property plus crops, reported for the zone	Public Assistance since plan nominal dollars; see note	Note
Cold Wave	\$2,816,595,456	\$23,095,317	7,289	\$63	\$7,723	\$82,430	under 0.0001%		\$0		
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$4,519,659,644	n/a	7,293	\$150,945	n/a	\$9,772	0.00334%				
Hail	\$2,816,595,456	\$23,095,317	7,289	\$801	\$1,639	\$2,590	under 0.0001%	\$0			
Heat Wave	\$2,816,595,456	\$23,095,317	7,289	under \$1	\$25,124	\$34,545	under 0.0001%		\$0		
Hurricane	\$2,799,827,503	\$22,591,606	7,254	\$31,363	\$7,824	\$875	0.00112%			no Public Assistance recorded (2 declarations)	
Ice Storm	\$2,816,595,456	n/a	7,289	\$76,073	n/a	\$4,998	0.0027%		\$25,000		

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2018-07-16 <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
Inland Flooding	\$2,785,291,794	\$273,463	210	\$3,130,469	\$787	\$9,101	n/a (see note)			no Public Assistance recorded (4 declarations)	NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b.
Landslide	\$42,548,645	n/a	94	\$11	n/a	\$26	under 0.0001%			no Public Assistance recorded (1 declaration)	
Lightning	\$2,816,595,456	n/a	7,289	\$89,748	n/a	\$54,192	0.00319%	\$40,000			
Strong Wind	\$2,816,595,456	\$23,095,317	7,289	\$40,590	\$6,490	\$125,329	0.00144%	\$62,000	\$520,000		Storm Events damage since the plan includes 3 zone-level High Wind records (\$235,000) and 10 zone-level Strong Wind records (\$285,000): NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition.
Tornado	\$2,816,595,456	\$23,095,317	7,289	\$14,798	\$33	\$20,024	0.000525%				
Wildfire	\$331,609,123	\$4,979,657	1,473	\$2,604	\$3	\$261	0.000785%				
Winter Weather	\$2,816,595,456	\$23,095,317	7,289	\$19,601	\$20	\$11,807	0.000696%		\$117,000		

Totals since 2018-07-16 (Storm Events through 2026-06-30): 13 county-coded records, 13 with a damage value recorded (including \$0), \$102,000; 79 zone-level records, 79 with a damage value recorded (including \$0), \$662,000 reported for the zone; Public Assistance: none recorded on the 6 counted declarations.

FEMA does not split Public Assistance by hazard. A declaration mapped to several hazards is listed under each of them with its full amount, so the per-hazard column does not add up to the total; the unit total counts each declaration once.

NRI computes earthquake exposure on its own basis, so it exceeds the county building value in B2-a.

Supports FEMA checklist item B2-a: vulnerability (county context)

County-level: Grand Isle County.

County context

Source: 5

Measure	Value
Population	7,289
Building value (total, not at risk)	\$2,816,595,456
Agriculture value (total, not at risk)	\$23,095,317
NRI risk rating (all hazards)	Very Low
Expected annual loss, buildings and agriculture, all hazards	\$3,606,709
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)	\$355,952
Social vulnerability rating	Very Low
Community resilience rating	Very High
NRI version	December 2025

FEMA's all-hazard expected annual loss adds buildings, agriculture and population equivalence; this table gives the property part and the population-equivalence part as separate rows.

Social vulnerability: higher means people are more likely to be harmed and slower to recover. Community resilience: lower means the community is less able to recover. High social vulnerability and low resilience both raise the NRI risk rating.

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in Grand Isle County, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	0
Repetitive loss, NFIP insurance definition	0	Severe repetitive loss, NFIP insurance definition	0

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

Repeat-flood properties: county total and NFIP communities

Sources: 1, 4

Scope	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
County total	0	0	0	0	0	0	0

Repeat-flood properties by jurisdiction in the plan (NFIP community)

Sources: 1, 4

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
South Hero town	500226	0	0	0	0	0	0	0

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

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

County repeat-flood properties by occupancy group: 0 in every occupancy group.

Sources: 1, 4

FMA RL and FMA SRL are the Flood Mitigation Assistance definitions (44 CFR 77.2), the ones the FEMA Local Mitigation Planning Policy Guide cites. NFIP repetitive loss (the FEMA insurance definition) is 2 or more claims over \$1,000 in 10 years, and a property can leave that group once it is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured. The Methods page gives the OpenFEMA field details.

Counts are aggregates of FEMA's public NFIP Multiple Loss Properties file (FEMA's data date 2026-08-02; file version 2026-08-04). No property is identified. County assignment is FEMA's geocode.

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 0 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>

8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_scsd_national.zip, https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)

What this packet is and what the plan adds

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

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

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

OpenFEMA disclaimer

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

Reuse, citation and corrections

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). South Hero town, VT: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-30; Town FIPS 5001367000). Automated baseline. <https://hazardplain.org/vt/5001367000/> Built from FEMA OpenFEMA, the FEMA National Risk Index and NOAA NCEI Storm Events; source versions in the packet's Sources list.

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