

# Windham town, VT

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

Town FIPS: 5002584850    Release: 2026-10    Data as of: 2026-09-30    Storm Events data through: 2026-06-30

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## Summary

Plan status as of 2026-09-30: Approved, expires 2028-10-16. Plan: Town of Windham, Vermont Local Hazard Mitigation Plan (FEMA plan 109355), approved 2023-10-17. Sections B1-a, B1-b, B1-c, B1-d, B1-e, B2-a and B2-b use Windham County data (county FIPS 50025; each heading says so); the plan clock, B1-f and B2-c are for Windham town.

Since the plan was approved on 2023-10-17: 2 new hazard declarations (2 incidents) and 108 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 (\$14,686,235 a year), Cold Wave (\$2,123,059) and Hurricane (\$986,765).

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; 5002584850 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.

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Plan clock

|           |                              |                 |                                                                          |
|-----------|------------------------------|-----------------|--------------------------------------------------------------------------|
| Status:   | Approved, expires 2028-10-16 | Plan:           | Town of Windham, Vermont Local Hazard Mitigation Plan (FEMA plan 109355) |
| Approved: | 2023-10-17                   | Days to expiry: | 747                                                                      |

What changed since your last plan (approved 2023-10-17)

|                                  |                                                                                                                         |                                                                     |                                       |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------|
| New federal declarations:        | 2 new hazard declarations (2 incidents): DR-4762-VT (Severe Storm and Flooding), EM-3609-VT (Tropical Depression Debby) | Storm Events records since approval (Windham County, county-level): | 108 records (data through 2026-06-30) |
| Repetitive loss now (this town): | FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 0                                                                        | 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<br><i>negative = days since expiry</i> |
|--------------|------|------------------------------|--------------------------------------------------------------------------|------------|------------|-------------------------------------------------------|
| Windham town | Town | Approved, expires 2028-10-16 | Town of Windham, Vermont Local Hazard Mitigation Plan (FEMA plan 109355) | 2023-10-17 | 2028-10-16 | 747                                                   |

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

## Supports FEMA checklist item B1-a: hazard identification

County-level: Windham 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<br>by EAL | Hazard          | NRI risk<br>rating  | EAL rating          | EAL buildings<br><i>modeled dollars<br/>per year</i> | EAL<br>agriculture<br><i>modeled dollars<br/>per year</i> | Cost of expected<br>deaths and injuries<br><i>FEMA's dollar value per<br/>year, not property<br/>damage</i> | EAL total (see<br>note)<br><i>modeled dollars<br/>per year</i> | Storm Events<br>records, 1996 to<br>2026-06-30<br><i>count</i> | Storm Events coverage note                                                                                                            |
|----------------|-----------------|---------------------|---------------------|------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| 1              | Inland Flooding | Relatively Low      | Relatively Low      | \$14,164,072                                         | \$85,584                                                  | \$436,580                                                                                                   | \$14,686,235                                                   | 127                                                            |                                                                                                                                       |
| 2              | Cold Wave       | Relatively Moderate | Relatively Moderate | \$223                                                | \$10,959                                                  | \$2,111,877                                                                                                 | \$2,123,059                                                    | 78                                                             | Includes 18 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor). |
| 3              | Hurricane       | Relatively Low      | Relatively Low      | \$891,730                                            | \$64,831                                                  | \$30,204                                                                                                    | \$986,765                                                      | 1                                                              |                                                                                                                                       |
| 4              | Tornado         | Relatively Low      | Relatively Low      | \$469,083                                            | \$591                                                     | \$444,698                                                                                                   | \$914,372                                                      | 3                                                              |                                                                                                                                       |
| 5              | Lightning       | Relatively Moderate | Relatively Moderate | \$26,590                                             | n/a                                                       | \$342,500                                                                                                   | \$369,090                                                      | 4                                                              |                                                                                                                                       |
| 6              | Earthquake      | Very Low            | Relatively Low      | \$252,569                                            | n/a                                                       | \$35,013                                                                                                    | \$287,583                                                      |                                                                | Storm Events does not record earthquakes.                                                                                             |
| 7              | Ice Storm       | Relatively Moderate | Relatively Moderate | \$257,932                                            | n/a                                                       | \$4,380                                                                                                     | \$262,312                                                      | 5                                                              |                                                                                                                                       |
| 8              | Strong Wind     | Relatively Low      | Relatively Low      | \$87,231                                             | \$1,461                                                   | \$141,801                                                                                                   | \$230,493                                                      | 231                                                            | Includes 33 High Wind and 57 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).            |
| 9              | Heat Wave       | Very Low            | Relatively Low      | under \$1                                            | \$10,731                                                  | \$210,575                                                                                                   | \$221,306                                                      | 39                                                             |                                                                                                                                       |
| 10             | Hail            | Very Low            | Relatively Low      | \$6,276                                              | \$17,414                                                  | \$112,029                                                                                                   | \$135,719                                                      | 32                                                             |                                                                                                                                       |
| 11             | Winter Weather  | Relatively Low      | Relatively Low      | \$33,556                                             | \$13                                                      | \$32,227                                                                                                    | \$65,797                                                       | 275                                                            |                                                                                                                                       |
| 12             | Landslide       | Relatively Low      | Relatively Low      | \$22,688                                             | n/a                                                       | \$10,636                                                                                                    | \$33,324                                                       | 0                                                              | Declared 2 times; no Storm Events record of this type.                                                                                |

| Rank<br>by EAL | Hazard    | NRI risk<br>rating | EAL rating                   | EAL buildings<br><i>modeled dollars<br/>per year</i> | EAL agriculture<br><i>modeled dollars<br/>per year</i> | Cost of expected<br>deaths and injuries<br><i>FEMA's dollar value per<br/>year, not property<br/>damage</i> | EAL total (see<br>note)<br><i>modeled dollars<br/>per year</i> | Storm Events<br>records, 1996 to<br>2026-06-30<br><i>count</i> | Storm Events coverage note                                               |
|----------------|-----------|--------------------|------------------------------|------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------|
| 13             | Wildfire  | Very Low           | Very Low                     | \$7,800                                              | \$2                                                    | \$696                                                                                                       | \$8,499                                                        | 1                                                              |                                                                          |
| 14             | Avalanche | Very Low           | Very Low                     | under \$1                                            | n/a                                                    | \$417                                                                                                       | \$417                                                          | 0                                                              | No recorded events in Storm Events since 1996 (data through 2026-06-30). |
| 15             | Drought   | No Rating          | No Expected<br>Annual Losses | n/a                                                  | \$0                                                    | n/a                                                                                                         | \$0                                                            | 8                                                              |                                                                          |

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 landslide records (Storm Events records this hazard only in part).

*Not applicable to this county per NRI, with no federal declaration and no Storm Events record since 1996: 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: Windham 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<br><i>NRI risk rating, score 0 to 100</i>                                                  |
|------------|------------------------------------------------------------------------------------------------------------------------|
| Avalanche  | tract 9679 (Very Low, 36.5); tract 9686 (Very Low, 36.2); tract 9672 (Very Low, 34.9)                                  |
| Earthquake | tract 9686 (Relatively Low, 59.2); tract 9685 (Relatively Low, 58.9); tract 9670 (Relatively Low, 52.3)                |
| Hurricane  | tract 9685 (Relatively Moderate, 79.0); tract 9686 (Relatively Low, 77.4); tract 9687 (Relatively Low, 75.8)           |
| Landslide  | tract 9672 (Relatively Moderate, 98.1); tract 9687 (Relatively Moderate, 95.8); tract 9682 (Relatively Low, 95.2)      |
| Tornado    | tract 9685 (Relatively Moderate, 64.0); tract 9686 (Relatively Moderate, 56.4); tract 9687 (Relatively Moderate, 55.4) |
| Wildfire   | tract 9687 (Relatively Low, 69.6); tract 9672 (Very Low, 66.0); tract 9680 (Very Low, 64.2)                            |

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 9679 is Census Tract 9679). 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: Windham County.

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

Sources: 6, 7

| Hazard                                            | Scale                                 | Records<br><i>count and years</i>        | Observed range                                                 | Worst recorded event                                                                                                  | Most damaging<br>(when different)                                      | Where in the county                                                                                                                                                                                                                                                                                                                                                        | Note                                                                                                                                                                 |
|---------------------------------------------------|---------------------------------------|------------------------------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche                                         | none (count and damage only)          | 0                                        |                                                                |                                                                                                                       |                                                                        |                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                      |
| Cold/Wind Chill, Extreme Cold/Wind Chill          | wind chill                            | 60 records, 2000 to 2026 (60 zone-level) | 1 day to 4 days (median 2 days); 46 with a recorded value      | 4 consecutive days, 2026-01-29 to 2026-02-01, zone-level                                                              |                                                                        | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                      |
| Frost/Freeze (outside NRI's Cold Wave definition) | crop damage                           | 18 records, 2002 to 2023 (18 zone-level) |                                                                | No crop damage reported in 18 records.                                                                                |                                                                        | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                      |
| Drought                                           | U.S. Drought Monitor scale (D0 to D4) | 8 records, 1999 to 2025 (8 zone-level)   | 30 days to 50 days (median 46.5 days); 4 with a recorded value | 50 days (about 1.6 months), 2025-09-23 to 2025-11-11, a run of 3 consecutive Storm Events drought records, zone-level |                                                                        | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                           | Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only. |
| Earthquake                                        | Modified Mercalli (local data)        | 0                                        |                                                                |                                                                                                                       |                                                                        |                                                                                                                                                                                                                                                                                                                                                                            | Storm Events does not record earthquakes; the USGS earthquake catalog is the source.                                                                                 |
| Hail                                              | hail size (inches)                    | 34 records, 1958 to 2023                 | 0.75 in to 2 in (median 1 in); 34 with a recorded value        | 2 in hail, 2012-05-29; same size also recorded on 2011-06-01                                                          | Hail, 1994-07-25, \$50,000 property; crops not recorded (1994 dollars) | Event records naming places in the county: Rockingham town (7 records), Bellows Falls village (5 records), Brattleboro town (4 records), Halifax town (3 records), Dover town (2 records), Guilford town (2 records), Newfane town (2 records), Newfane village (2 records), Townshend town (2 records), Vernon town (2 records); and 10 more places (see the Excel file). |                                                                                                                                                                      |
| Excessive Heat, Heat                              | heat index (in event narratives)      | 39 records, 1998 to 2026 (39 zone-level) | 1 day to 5 days (median 2 days); 28 with a recorded value      | 5 consecutive days, 2018-07-01 to 2018-07-05, zone-level                                                              |                                                                        | 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                        | 1 record, 2011 (1 zone-level)            |                                                                | Strongest recorded: Tropical Storm record, 2011-08-28, \$0 property; \$0 crops (2011 dollars); NWS zone VTZ015        |                                                                        | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                           | Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.                         |

| Hazard                                                           | Scale                                                                              | Records<br><i>count and years</i>         | Observed range                                                                         | Worst recorded event                                                                                                                                                                                                                                   | Most damaging<br>(when different)                                                        | Where in the county                                                                                                                                                                                                                                                                                                                                                                                                             | Note                                                                                                                                                                                                          |
|------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ice Storm                                                        | Sperry-Piltz ice scale (local data)                                                | 5 records, 2007 to 2025 (5 zone-level)    |                                                                                        | No damage reported in 5 records.                                                                                                                                                                                                                       |                                                                                          | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                               |
| Flash Flood, Flood, Lakeshore Flood                              | damage and flood days (flood depth: FIRM)                                          | 127 records, 1996 to 2025 (10 zone-level) |                                                                                        | Flash Flood, 2021-07-29, \$1,000,000 property; \$0 crops (2021 dollars)                                                                                                                                                                                |                                                                                          | Event records naming places in the county: Brattleboro town (18 records), Rockingham town (15 records), Bellows Falls village (7 records), Londonderry town (7 records), Wardsboro town (7 records), Athens town (6 records), Townshend town (6 records), Wilmington town (6 records), Windham town (6 records), Brookline town (5 records); and 16 more places (see the Excel file). Zone-level records (10) 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. |
| Debris Flow                                                      | none (count and damage only)                                                       | 0                                         |                                                                                        |                                                                                                                                                                                                                                                        |                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                               |
| Lightning                                                        | annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names) | 4 records, 2004 to 2019                   |                                                                                        | Lightning, 2007-08-03, \$250,000 property; \$0 crops (2007 dollars)                                                                                                                                                                                    |                                                                                          | Event records naming places in the county: Brattleboro town (3 records), Guilford 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)                                                            | 90 records, 1996 to 2026 (90 zone-level)  | 28 kt (32 mph) to 124.3 kt (143 mph) (median 45 kt (52 mph)); 75 with a recorded value | 124.3 kt (143 mph) measured gust, High Wind, 2006-02-17 (NCEI files 143 kt, but its narrative gives 143 miles an hour, measured by ski lift staff at the top of Stratton Mountain, 3,885 ft; shown as 143 mph, a mountaintop reading); NWS zone VTZ014 | High Wind, 1999-09-16, \$175,000 property; crops not reported (zone total, 1999 dollars) | Countywide (zone-level records).                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                               |
| Thunderstorm Wind                                                | wind speed (kt and mph)                                                            | 183 records, 1957 to 2026                 | 50 kt (58 mph) to 70 kt (81 mph) (median 50 kt (58 mph)); 123 with a recorded value    | 70 kt (81 mph) estimated gust, Thunderstorm Wind, 2022-05-16                                                                                                                                                                                           | Thunderstorm Wind, 1999-07-06, \$150,000 property; crops not reported (1999 dollars)     | Event records naming places in the county: Brattleboro town (26 records), Rockingham town (13 records), Dummerston town (11 records), Vernon town (11 records), Londonderry town (10 records), Putney town (10 records), Westminster town (10 records), Dover town (9 records), Guilford town (8 records), Newfane town (8 records); and 16 more places (see the Excel file).                                                   |                                                                                                                                                                                                               |

| Hazard                                                                                      | Scale                                       | Records<br><i>count and years</i>                    | Observed range                                               | Worst recorded event                                                                                                             | Most damaging<br>(when different)                                                   | Where in the county                                                                                  | Note                                                                                                                                                                                                                             |
|---------------------------------------------------------------------------------------------|---------------------------------------------|------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tornado                                                                                     | Enhanced Fujita<br>(Fujita before Feb 2007) | 5 records,<br>1957 to 2019                           | F/EF0 to F/EF2<br>(median F/EF1); 5<br>with a recorded value | F2 tornado, 2002-06-05,<br>0.1 mi within this county,<br>150 yd wide, \$75,000<br>property; crops not<br>reported (2002 dollars) | Tornado, 1988-07-14,<br>\$250,000 property;<br>crops not recorded<br>(1988 dollars) | Event records naming places in the<br>county: Windham town (2 records),<br>Stratton town (1 record). | Before 1996 a tornado is listed once, under<br>the county where it began, with its whole<br>path's rating and length; from 1996 on, each<br>county lists its own segment. Length is not<br>used to rank tornadoes (see Methods). |
| Wildfire                                                                                    | acres burned<br>(local data)                | 1 record, 2002<br>(1 zone-level)                     |                                                              | No damage reported in 1<br>record.                                                                                               |                                                                                     | Countywide (zone-level records).                                                                     |                                                                                                                                                                                                                                  |
| Winter Storm,<br>Heavy Snow,<br>Blizzard, Lake-<br>Effect Snow,<br>Winter<br>Weather, Sleet | none in data<br>(snowfall: local<br>data)   | 275 records,<br>1996 to 2026<br>(275 zone-<br>level) |                                                              | Winter Storm,<br>1997-03-31, \$750,000<br>property; crops not<br>reported (1997 dollars);<br>NWS zone VTZ014                     |                                                                                     | Countywide (zone-level records).                                                                     |                                                                                                                                                                                                                                  |

Where a hazard names more than 10 jurisdictions, the table lists the 10 with the most records; every one is in the Excel file, sheet "B1-c Extent".

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

## Supports FEMA checklist item B1-d: previous occurrences

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

Federal declarations for this county: 24 declarations covering 20 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<br>began | FEMA<br>number | Type              | Title                                                 | Mapped hazard                                            | County Public Assistance<br><i>federal share obligated, nominal<br/>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                      |                             |
| 2024-03-02 | 2023-12-18        | DR-4762-VT     | Major<br>disaster | Severe Storm and Flooding                             | Inland Flooding                                          | \$637,779.66                                                                    | new since last plan; within last 5 years                      |                             |
| 2023-07-14 | 2023-07-07        | DR-4720-VT     | Major<br>disaster | Severe Storms, Flooding,<br>Landslides, and Mudslides | Inland Flooding (primary); also<br>designated: Landslide | \$8,687,960.12                                                                  | in the 12 months before plan<br>approval; within last 5 years |                             |
| 2023-07-10 | 2023-07-09        | EM-3595-VT     | Emergency         | Flooding                                              | Inland Flooding                                          | no Public Assistance recorded                                                   | in the 12 months before plan<br>approval; within last 5 years | same incident as<br>DR-4720 |
| 2021-09-29 | 2021-07-29        | DR-4621-VT     | Major<br>disaster | Severe Storm and Flooding                             | Inland Flooding                                          | \$5,307,379.77                                                                  |                                                               |                             |
| 2021-08-22 | 2021-08-22        | EM-3567-VT     | Emergency         | Tropical Storm Henri                                  | Hurricane                                                | 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> |       |                          |
| 2020-04-08 | 2020-01-20     | DR-4532-VT  | Major disaster | COVID-19 Pandemic                     | Non-natural, not counted                                   | \$2,084,258.16                                  |       |                          |
| 2020-03-13 | 2020-01-20     | EM-3437-VT  | Emergency      | COVID-19                              | Non-natural, not counted                                   | no Public Assistance recorded                   |       | same incident as DR-4532 |
| 2018-01-02 | 2017-10-29     | DR-4356-VT  | Major disaster | Severe Storm and Flooding             | Inland Flooding                                            | \$1,075,219.83                                  |       |                          |
| 2011-11-08 | 2011-05-20     | DR-4043-VT  | Major disaster | Severe Storms and Flooding            | Inland Flooding                                            | \$105,280.23                                    |       |                          |
| 2011-09-01 | 2011-08-27     | DR-4022-VT  | Major disaster | Tropical Storm Irene                  | Hurricane                                                  | \$26,650,386.33                                 |       |                          |
| 2011-08-29 | 2011-08-26     | EM-3338-VT  | Emergency      | Hurricane Irene                       | Hurricane                                                  | no Public Assistance recorded                   |       | same incident as DR-4022 |
| 2009-01-14 | 2008-12-11     | DR-1816-VT  | Major disaster | Severe Winter Storm                   | Ice Storm                                                  | \$1,160,432.78                                  |       |                          |
| 2007-05-04 | 2007-04-15     | DR-1698-VT  | Major disaster | Severe Storms and Flooding            | Inland Flooding                                            | \$2,063,625.53                                  |       |                          |
| 2004-09-23 | 2004-08-12     | DR-1559-VT  | Major disaster | Severe Storms and Flooding            | Inland Flooding                                            | \$314,234.97                                    |       |                          |
| 2003-09-12 | 2003-07-21     | DR-1488-VT  | Major disaster | Severe Storms and Flooding            | Inland Flooding                                            | \$331,699.06                                    |       |                          |
| 2001-04-10 | 2001-03-05     | EM-3167-VT  | Emergency      | Snow                                  | Winter Weather                                             | \$129,237.37                                    |       |                          |
| 2000-07-27 | 2000-07-14     | DR-1336-VT  | Major disaster | Severe Storms and Flooding            | Inland Flooding                                            | \$1,083,695                                     |       |                          |
| 1999-11-10 | 1999-09-16     | DR-1307-VT  | Major disaster | Tropical Storm Floyd                  | Hurricane; Inland Flooding                                 | \$158,758.75                                    |       |                          |
| 1996-06-27 | 1996-06-12     | DR-1124-VT  | Major disaster | Extreme Rainfall and Flooding         | Inland Flooding                                            | no Public Assistance recorded                   |       |                          |
| 1996-02-13 | 1996-01-19     | DR-1101-VT  | Major disaster | Ice Jams and Flooding                 | Inland Flooding (primary); also designated: Winter Weather | no Public Assistance recorded                   |       |                          |
| 1976-08-05 | 1976-08-05     | DR-518-VT   | Major disaster | Severe Storms, High Winds & Flooding  | Inland Flooding (primary); also designated: Strong Wind    | 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                   |       |                          |
| 1969-08-30 | 1969-08-30     | DR-277-VT   | Major disaster | Severe Storms & Flooding              | Inland Flooding                                            | 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,<br>all years on file<br><i>(years in the Period column)</i> | Since plan<br>approval<br><i>records</i> | In the 12 months before<br>plan approval<br><i>records</i> | Last 5<br>years<br><i>records</i> | Declared incidents,<br>all years<br><i>separate disasters</i> | Declared since<br>approval<br><i>separate disasters</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                              |
| Cold Wave       | 78                                                                                | 10                                       | 4                                                          | 19                                | 0                                                             | 0                                                       | 1996 to 2026-06-30 | Includes 18 Frost/Freeze records.                                                           |
| Drought         | 8                                                                                 | 5                                        | 0                                                          | 7                                 | 0                                                             | 0                                                       | 1996 to 2026-06-30 |                                                                                             |
| Earthquake      | 0                                                                                 | 0                                        | 0                                                          | 0                                 | 0                                                             | 0                                                       |                    | Storm Events does not record earthquakes; the USGS earthquake catalog is the source.        |
| Hail            | 34                                                                                | 0                                        | 1                                                          | 1                                 | 0                                                             | 0                                                       | 1955 to 2026-06-30 |                                                                                             |
| Heat Wave       | 39                                                                                | 11                                       | 2                                                          | 17                                | 0                                                             | 0                                                       | 1996 to 2026-06-30 |                                                                                             |
| Hurricane       | 1                                                                                 | 0                                        | 0                                                          | 0                                 | 4                                                             | 1                                                       | 1996 to 2026-06-30 |                                                                                             |
| Ice Storm       | 5                                                                                 | 1                                        | 0                                                          | 1                                 | 1                                                             | 0                                                       | 1996 to 2026-06-30 |                                                                                             |
| Inland Flooding | 127                                                                               | 17                                       | 12                                                         | 30                                | 15                                                            | 1                                                       | 1996 to 2026-06-30 |                                                                                             |
| Landslide       | 0                                                                                 | 0                                        | 0                                                          | 0                                 | 2                                                             | 0                                                       | 1996 to 2026-06-30 | No Storm Events records of this type; 2 federal declared incidents (see declarations table) |
| Lightning       | 4                                                                                 | 0                                        | 0                                                          | 0                                 | 0                                                             | 0                                                       | 1996 to 2026-06-30 |                                                                                             |
| Strong Wind     | 273                                                                               | 30                                       | 4                                                          | 53                                | 1                                                             | 0                                                       | 1955 to 2026-06-30 | Includes 33 High Wind and 57 Strong Wind records.                                           |
| Tornado         | 5                                                                                 | 0                                        | 0                                                          | 0                                 | 0                                                             | 0                                                       | 1950 to 2026-06-30 |                                                                                             |

| Hazard            | Storm Events records,<br>all years on file<br><i>(years in the Period column)</i> | Since plan<br>approval<br><i>records</i> | In the 12 months before<br>plan approval<br><i>records</i> | Last 5<br>years<br><i>records</i> | Declared incidents,<br>all years<br><i>separate disasters</i> | Declared since<br>approval<br><i>separate disasters</i> | Period                | Statement |
|-------------------|-----------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------|---------------------------------------------------------|-----------------------|-----------|
| Wildfire          | 1                                                                                 | 0                                        | 0                                                          | 0                                 | 0                                                             | 0                                                       | 1996 to<br>2026-06-30 |           |
| Winter<br>Weather | 275                                                                               | 34                                       | 8                                                          | 53                                | 2                                                             | 0                                                       | 1996 to<br>2026-06-30 |           |

Notable Storm Events records

Sources: 1, 6, 7

| Date       | Event type        | Magnitude or extent                        | Damage<br><i>nominal dollars</i>                     | Deaths,<br>injuries<br><i>direct only</i> | Location                                      | Flags                                       | Why listed                                                          |
|------------|-------------------|--------------------------------------------|------------------------------------------------------|-------------------------------------------|-----------------------------------------------|---------------------------------------------|---------------------------------------------------------------------|
| 2026-01-29 | Cold/Wind Chill   |                                            | damage not reported                                  | 0, 0                                      | NWS zone VTZ015 (EASTERN WINDHAM), zone-level | new since last plan;<br>within last 5 years | B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill       |
| 2022-05-16 | Thunderstorm Wind | 70 kt (81 mph) estimated gust              | damage not reported                                  | 0, 0                                      | WARDSBORO                                     | within last 5 years                         | B1-c worst recorded: Thunderstorm Wind                              |
| 2021-07-29 | Flash Flood       |                                            | \$1,000,000 property; \$0 crops (2021 dollars)       | 0, 0                                      | NEWFANE to BROOKLINE                          |                                             | B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood            |
| 2021-07-29 | Flash Flood       |                                            | \$600,000 property; \$0 crops (2021 dollars)         | 0, 1                                      | ATHENS to BROOKLINE                           |                                             | deaths or injuries recorded                                         |
| 2018-07-01 | Excessive Heat    |                                            | damage not reported                                  | 0, 0                                      | NWS zone VTZ015 (EASTERN WINDHAM), zone-level |                                             | B1-c worst recorded: Excessive Heat, Heat                           |
| 2014-07-02 | Lightning         |                                            | \$0 property; \$0 crops (2014 dollars)               | 0, 7                                      | GUILFORD                                      |                                             | deaths or injuries recorded                                         |
| 2012-05-29 | Hail              | 2 in                                       | damage not reported                                  | 0, 0                                      | BELLOWS FALLS                                 |                                             | B1-c worst recorded: Hail                                           |
| 2011-08-28 | Flash Flood       |                                            | \$0 property; \$0 crops (2011 dollars)               | 1, 0                                      | WHITINGHAM to RAWSONVILLE                     |                                             | deaths or injuries recorded                                         |
| 2011-08-28 | Tropical Storm    |                                            | \$0 property; \$0 crops (zone total, 2011 dollars)   | 0, 0                                      | NWS zone VTZ015 (EASTERN WINDHAM), zone-level |                                             | B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression |
| 2007-08-03 | Lightning         |                                            | \$250,000 property; \$0 crops (2007 dollars)         | 0, 0                                      | BRATTLEBORO                                   |                                             | B1-c worst recorded: Lightning                                      |
| 2006-02-17 | High Wind         | 124.3 kt (143 mph) measured gust           | damage not reported                                  | 0, 0                                      | NWS zone VTZ014 (WESTERN WINDHAM), zone-level |                                             | B1-c worst recorded: High Wind and Strong Wind                      |
| 2002-06-05 | Tornado           | F2, 0.1 mi within this county, 150 yd wide | \$75,000 property; crops not reported (2002 dollars) | 0, 0                                      | WINDHAM                                       |                                             | B1-c worst recorded: Tornado                                        |

The full list is in the Excel file, sheet "B1-d Storm Events history" (850 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: Windham County.

### Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

| Hazard     | FEMA annualized frequency (modeled)<br><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  | 0.01                                                       | events per year                  | about 1 in 100 years                                                                       | Possible      | FEMA annualized frequency (modeled)                             | 0                                                                                                        | 1994 to 2023 (30 years)                    | see B1-f   | 0.01 is NRI's minimum avalanche frequency for a county in an avalanche susceptibility zone; NRI records no avalanche here, so the descriptor reflects the floor, not local events.                                  |
| Cold Wave  | 3.82                                                       | event-days per year              | about 3.82 days per year                                                                   | Likely        | Storm Events event-days in 17 of 30 years, 1996 to 2025 (56.7%) | 72.7                                                                                                     | 2005-11-12 to 2024-11-12 (19 years)        | countywide |                                                                                                                                                                                                                     |
| Drought    | 0                                                          | event-days per year              | none modeled                                                                               | Likely        | Storm Events event-days in 4 of 30 years, 1996 to 2025 (13.3%)  | 0                                                                                                        | 2000 to 2025 (25.25 years; D3 and D4 only) | countywide | NRI models no drought event-days here (2000 to 2025, 25.25 years; D3 and D4 only); Storm Events has a record in 4 of 30 years. The descriptor comes from Storm Events, which counts D2 drought that NRI leaves out. |
| Earthquake | 0.000934                                                   | annual probability at a location | chance a given location in the county has at least minor-damage shaking in a year: 0.0934% |               |                                                                 | not shown                                                                                                | modeled                                    | see B1-f   | No descriptor (Storm Events does not record earthquakes).                                                                                                                                                           |
| Hail       | 2.58                                                       | events per year                  | about 2.58 per year                                                                        | Highly likely | FEMA annualized frequency (modeled)                             | 98.1 (modeled)                                                                                           | 1986 to 2023 (38 years)                    | countywide |                                                                                                                                                                                                                     |
| Heat Wave  | 1.31                                                       | event-days per year              | about 1.31 days per year                                                                   | Likely        | Storm Events event-days in 14 of 30 years, 1996 to 2025 (46.7%) | 23.9                                                                                                     | 2005-11-12 to 2024-11-12 (19 years)        | countywide |                                                                                                                                                                                                                     |
| Hurricane  | 0.0627                                                     | events per year                  | about 1 in 16 years                                                                        | Possible      | FEMA annualized frequency (modeled)                             | 24                                                                                                       | 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  | 1.16                                                       | event-days per year              | about 1.16 days per year                                                                   | Likely        | Storm Events event-days in 3 of 30 years, 1996 to 2025 (10%)    | 78                                                                                                       | 1946-12-31 to 2014-02-12 (67 years)        | countywide |                                                                                                                                                                                                                     |

| Hazard             | FEMA<br>annualized<br>frequency<br>(modeled) | Unit                                   | In plain terms                                                           | Descriptor       | Descriptor basis                                                        | NRI events or days in its<br>record period (hail, wind<br>and tornado are area-<br>weighted, so can be<br>fractional) |                                                 |  |  | Location   | Note |
|--------------------|----------------------------------------------|----------------------------------------|--------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|--|--|------------|------|
|                    | <i>unit per row</i>                          |                                        |                                                                          |                  |                                                                         |                                                                                                                       | NRI period                                      |  |  |            |      |
| Inland<br>Flooding | 1.89                                         | event-days<br>per year                 | about 1.89 days per<br>year                                              | Likely           | Storm Events<br>event-days in 24 of<br>30 years, 1996 to<br>2025 (80%)  | 53                                                                                                                    | 1996 to 2023<br>(28 years)                      |  |  | see B1-f   |      |
| Landslide          | 1.64                                         | events per<br>year<br>(modeled)        | about 1.64 per year                                                      | Highly<br>likely | FEMA annualized<br>frequency<br>(modeled)                               | not shown                                                                                                             | modeled                                         |  |  | see B1-f   |      |
| Lightning          | 22.9                                         | days per year<br>with a strike         | about 22.9 days per<br>year                                              | Highly<br>likely | FEMA annualized<br>frequency<br>(modeled)                               | not shown                                                                                                             | 1995 to 2023<br>(29 years;<br>CONUS)            |  |  | countywide |      |
| Strong<br>Wind     | 1.29                                         | events per<br>year                     | about 1.29 per year                                                      | Highly<br>likely | FEMA annualized<br>frequency<br>(modeled)                               | 50                                                                                                                    | 1986 to 2023<br>(38 years)                      |  |  | countywide |      |
| Tornado            | 0.154                                        | events per<br>year                     | about 1 in 7 years                                                       | Likely           | FEMA annualized<br>frequency<br>(modeled)                               | not shown                                                                                                             | 1950 to 2023<br>(EF2+); 1986 to<br>2023 (EF0-1) |  |  | see B1-f   |      |
| Wildfire           | 0.0000176                                    | annual<br>probability at<br>a location | chance a given<br>location in the county<br>burns in a year:<br>0.00176% | Possible         | Storm Events<br>records in 1 of 30<br>years, 1996 to<br>2025 (3.33%)    | not shown                                                                                                             | modeled                                         |  |  | see B1-f   |      |
| Winter<br>Weather  | 23.4                                         | event-days<br>per year                 | about 23.4 days per<br>year                                              | Highly<br>likely | Storm Events<br>event-days in 30 of<br>30 years, 1996 to<br>2025 (100%) | 444                                                                                                                   | 2005-11-12 to<br>2024-11-12 (19<br>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<br><i>county-coded records</i> | Years in period | Events per year<br><i>events / years</i> |
|------------------------------------------------|---------------------------|--------------|---------------------------------------|-----------------|------------------------------------------|
| Hail                                           | 1.00-1.99 in              | 1996 to 2025 | 19                                    | 30              | 0.633                                    |
| Hail                                           | 2.00 in+                  | 1996 to 2025 | 2                                     | 30              | 0.0667                                   |
| Thunderstorm Wind (counted as NRI Strong Wind) | 50-64 kt                  | 1996 to 2025 | 116                                   | 30              | 3.87                                     |
| Thunderstorm Wind (counted as NRI Strong Wind) | 65 kt+                    | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| Thunderstorm Wind (counted as NRI Strong Wind) | unmeasured or below 50 kt | 1996 to 2025 | 18                                    | 30              | 0.6                                      |
| Tornado                                        | EF0-1                     | 1996 to 2025 | 2                                     | 30              | 0.0667                                   |
| Tornado                                        | EF2-3                     | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| Tornado                                        | EF4-5                     | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado                                        | unrated (EFU)             | 1996 to 2025 | 0                                     | 30              | 0                                        |

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<br><i>rated of all</i> | NRI risk score, 0 to 100 |        |      | Tracts by rating                                            |
|-----------------|-------------------------------|--------------------------|--------|------|-------------------------------------------------------------|
|                 |                               | Min                      | Median | Max  |                                                             |
| Avalanche       | 8 of 18                       | 29.6                     | 33.9   | 36.5 | Very Low 8, Not Applicable 10                               |
| Cold Wave       | 18 of 18                      | 53.7                     | 71.2   | 84.8 | Relatively High 3, Relatively Moderate 15                   |
| Drought         | 0 of 18                       |                          |        |      | No Rating 18                                                |
| Earthquake      | 18 of 18                      | 18.5                     | 32.7   | 59.2 | Relatively Low 4, Very Low 14                               |
| Hail            | 18 of 18                      | 32.9                     | 50.4   | 65.7 | Relatively Low 15, Very Low 3                               |
| Heat Wave       | 18 of 18                      | 3.0                      | 15.5   | 47.4 | Relatively Low 8, Very Low 10                               |
| Hurricane       | 18 of 18                      | 58.4                     | 68.6   | 79.0 | Relatively Moderate 1, Relatively Low 17                    |
| Ice Storm       | 18 of 18                      | 37.9                     | 75.6   | 91.9 | Relatively High 2, Relatively Moderate 11, Relatively Low 5 |
| Inland Flooding | 18 of 18                      | 16.5                     | 64.7   | 91.6 | Relatively High 4, Relatively Moderate 9, Relatively Low 5  |
| Landslide       | 18 of 18                      | 80.1                     | 93.2   | 98.1 | Relatively Moderate 2, Relatively Low 15, Very Low 1        |
| Lightning       | 18 of 18                      | 39.3                     | 67.9   | 90.5 | Relatively High 4, Relatively Moderate 10, Relatively Low 4 |
| Strong Wind     | 18 of 18                      | 23.3                     | 43.6   | 66.1 | Relatively Moderate 2, Relatively Low 16                    |
| Tornado         | 18 of 18                      | 28.5                     | 46.0   | 64.0 | Relatively Moderate 3, Relatively Low 14, Very Low 1        |
| Wildfire        | 18 of 18                      | 47.2                     | 57.9   | 69.6 | Relatively Low 1, Very Low 17                               |
| Winter Weather  | 18 of 18                      | 42.1                     | 58.9   | 74.8 | Relatively Moderate 14, Relatively Low 4                    |

Windham County's 18 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.

### 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> |
| Windham town | Town | Approved, expires 2028-10-16 | FMA RL 0, SRL 0; any 0                                            | \$1,439,963.80                                                                          | 9 total; 0 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: Windham County (National Risk Index exposure and expected annual loss; since-plan counts use Windham 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 (Windham County, county-level)

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

| Hazard     | Building exposure<br><i>modeled dollars</i> | Agriculture exposure<br><i>modeled dollars</i> | Population exposed<br><i>people</i> | EAL buildings<br><i>modeled dollars per year</i> | EAL agriculture<br><i>modeled dollars per year</i> | Cost of expected deaths and injuries<br><i>FEMA's dollar value per year; not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2023-10-17<br><i>county-coded records, property plus crops, nominal dollars</i> | Zone-level damage since plan<br><i>property plus crops, reported for the zone</i> | Public Assistance since plan<br><i>nominal dollars; see note</i> | Note                             |
|------------|---------------------------------------------|------------------------------------------------|-------------------------------------|--------------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------|
| Avalanche  | \$316,357                                   | n/a                                            | under 1                             | under \$1                                        | n/a                                                | \$417                                                                                            | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                  |
| Cold Wave  | \$13,821,487,117                            | \$36,806,490                                   | 45,853                              | \$223                                            | \$10,959                                           | \$2,111,877                                                                                      | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                  |
| Drought    | n/a                                         | \$0                                            | n/a                                 | n/a                                              | \$0                                                | n/a                                                                                              |                                                                   |                                                                                                           |                                                                                   |                                                                  | agriculture exposure is 0 in NRI |
| Earthquake | \$23,598,325,845                            | n/a                                            | 45,905                              | \$252,569                                        | n/a                                                | \$35,013                                                                                         | 0.00107%                                                          |                                                                                                           |                                                                                   |                                                                  |                                  |
| Hail       | \$13,821,681,781                            | \$36,806,490                                   | 45,853                              | \$6,276                                          | \$17,414                                           | \$112,029                                                                                        | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                  |
| Heat Wave  | \$13,821,487,117                            | \$36,806,490                                   | 45,853                              | under \$1                                        | \$10,731                                           | \$210,575                                                                                        | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                  |
| Hurricane  | \$13,818,780,059                            | \$36,806,490                                   | 45,844                              | \$891,730                                        | \$64,831                                           | \$30,204                                                                                         | 0.00645%                                                          |                                                                                                           |                                                                                   | no Public Assistance recorded (1 declaration)                    |                                  |
| Ice Storm  | \$13,813,269,647                            | n/a                                            | 45,836                              | \$257,932                                        | n/a                                                | \$4,380                                                                                          | 0.00187%                                                          |                                                                                                           |                                                                                   |                                                                  |                                  |

| <b>Hazard</b>   | <b>Building exposure</b><br><i>modeled dollars</i> | <b>Agriculture exposure</b><br><i>modeled dollars</i> | <b>Population exposed</b><br><i>people</i> | <b>EAL buildings</b><br><i>modeled dollars per year</i> | <b>EAL agriculture</b><br><i>modeled dollars per year</i> | <b>Cost of expected deaths and injuries</b><br><i>FEMA's dollar value per year, not property damage</i> | <b>EAL as % of exposure</b><br><i>buildings; agriculture where noted</i> | <b>Storm Events damage since 2023-10-17</b><br><i>county-coded records, property plus crops, nominal dollars</i> | <b>Zone-level damage since plan</b><br><i>property plus crops, reported for the zone</i> | <b>Public Assistance since plan</b><br><i>nominal dollars; see note</i> | <b>Note</b>                                                                                                                                                               |
|-----------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inland Flooding | \$13,787,621,067                                   | \$8,072,048                                           | 1,872                                      | \$14,164,072                                            | \$85,584                                                  | \$436,580                                                                                               | n/a (see note)                                                           | \$383,000                                                                                                        |                                                                                          | \$637,779.66                                                            | 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       | \$1,275,666,198                                    | n/a                                                   | 4,520                                      | \$22,688                                                | n/a                                                       | \$10,636                                                                                                | 0.00178%                                                                 |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                           |
| Lightning       | \$13,821,681,781                                   | n/a                                                   | 45,853                                     | \$26,590                                                | n/a                                                       | \$342,500                                                                                               | 0.000192%                                                                |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                           |
| Strong Wind     | \$13,821,681,781                                   | \$36,806,490                                          | 45,853                                     | \$87,231                                                | \$1,461                                                   | \$141,801                                                                                               | 0.000631%                                                                |                                                                                                                  | \$500                                                                                    |                                                                         | Storm Events damage since the plan includes 1 zone-level Strong Wind record (\$500): a NOAA non-thunderstorm wind type, outside NRI's Strong Wind definition.             |
| Tornado         | \$13,821,681,781                                   | \$36,806,490                                          | 45,853                                     | \$469,083                                               | \$591                                                     | \$444,698                                                                                               | 0.00339%                                                                 |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                           |
| Wildfire        | \$5,694,678,363                                    | \$15,161,078                                          | 18,692                                     | \$7,800                                                 | \$2                                                       | \$696                                                                                                   | 0.000137%                                                                |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                           |
| Winter Weather  | \$13,821,487,117                                   | \$36,806,490                                          | 45,853                                     | \$33,556                                                | \$13                                                      | \$32,227                                                                                                | 0.000243%                                                                |                                                                                                                  | \$0                                                                                      |                                                                         |                                                                                                                                                                           |

Totals since 2023-10-17 (Storm Events through 2026-06-30): 30 county-coded records, 17 with a damage value recorded (including \$0), \$383,000; 78 zone-level records, 2 with a damage value recorded (including \$0), \$500 reported for the zone; Public Assistance: \$637,779.66 on 2 counted declarations, 1 of them with Public Assistance.

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: Windham County.

County context

Source: 5

| Measure                                                                                                                                                                       | Value            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Population                                                                                                                                                                    | 45,853           |
| Building value (total, not at risk)                                                                                                                                           | \$13,821,681,781 |
| Agriculture value (total, not at risk)                                                                                                                                        | \$36,806,490     |
| NRI risk rating (all hazards)                                                                                                                                                 | Relatively Low   |
| Expected annual loss, buildings and agriculture, all hazards                                                                                                                  | \$16,411,336     |
| 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) | \$3,913,633      |
| Social vulnerability rating                                                                                                                                                   | Relatively Low   |
| Community resilience rating                                                                                                                                                   | Relatively 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 Windham 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) | 1          |
| Repetitive loss, NFIP insurance definition    | 12         | Severe repetitive loss, NFIP insurance definition    | 1          |

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<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|----------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| County total               | 0                            | 1                             | 12                            | 1                              | 12                                | 0                              | 5                                      |
| of which: Brattleboro town | 0                            | 0                             | 5                             | 0                              | 5                                 | 0                              | 2                                      |
| of which: Dover town       | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| of which: Londonderry town | 0                            | 1                             | 2                             | 1                              | 2                                 | 0                              | 1                                      |
| of which: Vernon town      | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 1                                      |
| of which: Whitingham town  | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| of which: Wilmington town  | 0                            | 0                             | 2                             | 0                              | 2                                 | 0                              | 1                                      |

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

Sources: 1, 4

| Jurisdiction | NFIP community ID | RL, FMA<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|--------------|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| Windham town | 500290            | 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

Sources: 1, 4

| Occupancy group           | RL, FMA<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|---------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| single-family residential | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 3                                      |
| 2 to 4 unit residential   | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| other residential         | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |
| non-residential           | 0                            | 1                             | 7                             | 1                              | 7                                 | 0                              | 2                                      |
| not reported              | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |

FEMA's occupancy groups have no institutional class; institutional properties are counted in non-residential or other residential in the table by occupancy group.

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

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

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 12 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

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## 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](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](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_counties_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_cousubs\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_place\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_unsd\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_elsd\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_scscd\\_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/codes2020/national_place_by_county2020.txt), [https://www2.census.gov/geo/docs/reference/ct\\_change/ct\\_cou\\_to\\_cousub\\_crosswalk.xlsx](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)
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## What this packet is and what the plan adds

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

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

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

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## 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).

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