

# Howard County, MD

## Risk-assessment baseline packet

Unit **County area 24027**    Release **2026-10**    As of **2026-09-28**    Storm Events data through **2026-06-30**

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

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

### OPENFEMA DISCLAIMER

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

## Plan clock

|          |                              |         |                                                         |
|----------|------------------------------|---------|---------------------------------------------------------|
| Status   | Approved, expires 2028-11-05 | Plan    | Howard County Hazard Mitigation Plan (FEMA plan 109068) |
| Approved | 2023-11-06                   | Expires | 2028-11-05                                              |
| As of    | 2026-09-28                   | Days    | 769 days to expiry                                      |

### What changed since your last plan (approved 2023-11-06)

|                          |                                                    |                                     |                                             |
|--------------------------|----------------------------------------------------|-------------------------------------|---------------------------------------------|
| New federal declarations | EM-3634-MD (1 declaration row; 1 counted incident) | Storm Events records since approval | 69 (data through 2026-06-30)                |
| Repetitive loss now      | FMA RL 9, SRL 6 (44 CFR 77.2); any definition: 47  | Repeat-flood change                 | First release: no prior release to compare. |

**SOURCES:** FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API); FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API); NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>; FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)

## Plan status for every jurisdiction listed in this county

| Jurisdiction  | Type   | Status                       | Plan                                                    | Approved   | Expires    | Days to expiry<br><i>negative = days since expiry</i> | Update underway | Notes |
|---------------|--------|------------------------------|---------------------------------------------------------|------------|------------|-------------------------------------------------------|-----------------|-------|
| Howard County | County | Approved, expires 2028-11-05 | Howard County Hazard Mitigation Plan (FEMA plan 109068) | 2023-11-06 | 2028-11-05 | 769                                                   |                 |       |

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

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

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Supports B1-a: hazards

Hazards NRI does not cover: check locally

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

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

| Rank by EAL | Hazard          | NRI risk rating     | EAL rating          | EAL buildings<br><i>modeled dollars per year</i> | EAL agriculture<br><i>modeled dollars per year</i> | EAL population equivalence<br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | EAL total (see note)<br><i>modeled dollars per year</i> | Storm Events records since 1996<br><i>count</i> | Evidence for an omission<br><i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i> | Storm Events coverage note                                                                                       |
|-------------|-----------------|---------------------|---------------------|--------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 1           | Inland Flooding | Relatively Moderate | Relatively Moderate | \$26,098,580                                     | \$13,730                                           | \$3,777,649                                                                                                      | \$29,889,959                                            | 161                                             |                                                                                                             |                                                                                                                  |
| 2           | Heat Wave       | Relatively Moderate | Relatively Moderate | \$2                                              | \$55                                               | \$4,811,959                                                                                                      | \$4,812,016                                             | 20                                              |                                                                                                             |                                                                                                                  |
| 3           | Hurricane       | Relatively Low      | Relatively Moderate | \$3,443,564                                      | \$142,012                                          | \$113,199                                                                                                        | \$3,698,776                                             | 1                                               |                                                                                                             |                                                                                                                  |
| 4           | Strong Wind     | Relatively High     | Relatively High     | \$720,633                                        | \$51,945                                           | \$2,446,432                                                                                                      | \$3,219,010                                             | 331                                             |                                                                                                             | Includes 6 High Wind records and 1 Strong Wind record, event types the NRI definition of this hazard leaves out. |
| 5           | Earthquake      | Relatively Low      | Relatively Low      | \$1,792,631                                      |                                                    | \$443,499                                                                                                        | \$2,236,130                                             |                                                 |                                                                                                             | Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.       |
| 6           | Cold Wave       | Relatively Low      | Relatively Moderate | \$91,294                                         | \$31,667                                           | \$1,661,819                                                                                                      | \$1,784,780                                             | 31                                              |                                                                                                             | Includes 23 Frost/Freeze records, event types the NRI definition of this hazard leaves out.                      |
| 7           | Tornado         | Relatively Low      | Relatively Low      | \$1,275,871                                      | \$512                                              | \$298,140                                                                                                        | \$1,574,522                                             | 15                                              |                                                                                                             |                                                                                                                  |
| 8           | Lightning       | Relatively High     | Relatively High     | \$88,656                                         |                                                    | \$1,402,150                                                                                                      | \$1,490,807                                             | 7                                               |                                                                                                             |                                                                                                                  |
| 9           | Drought         | Relatively Moderate | Relatively Moderate |                                                  | \$1,167,602                                        |                                                                                                                  | \$1,167,602                                             | 0                                               |                                                                                                             | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                         |

| Rank<br>by<br>EAL | Hazard               | NRI risk<br>rating | EAL rating             | EAL<br>buildings<br><i>modeled dollars<br/>per year</i> | EAL<br>agriculture<br><i>modeled<br/>dollars per<br/>year</i> | EAL population<br>equivalence<br><i>statistical value of life<br/>and injury, \$13.7M per<br/>life, not property damage</i> | EAL total<br>(see note)<br><i>modeled dollars<br/>per year</i> | Storm<br>Events<br>records<br>since 1996<br><i>count</i> | Evidence for an omission<br><i>NRI Not Applicable, no<br/>declaration and no Storm Events<br/>record since 1996</i> | Storm Events coverage note                                                                                                                                     |
|-------------------|----------------------|--------------------|------------------------|---------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10                | Hail                 | Relatively<br>Low  | Relatively<br>Moderate | \$1,007,021                                             | \$8,275                                                       | \$1,629                                                                                                                     | \$1,016,925                                                    | 49                                                       |                                                                                                                     |                                                                                                                                                                |
| 11                | Winter<br>Weather    | Relatively<br>High | Relatively<br>High     | \$42,819                                                | \$11                                                          | \$802,647                                                                                                                   | \$845,477                                                      | 98                                                       |                                                                                                                     |                                                                                                                                                                |
| 12                | Ice Storm            | Relatively<br>Low  | Relatively<br>Moderate | \$157,218                                               |                                                               | \$59,621                                                                                                                    | \$216,839                                                      | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                                                                       |
| 13                | Wildfire             | Very Low           | Very Low               | \$7,285                                                 | \$1                                                           | \$1,570                                                                                                                     | \$8,855                                                        | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
| 14                | Landslide            | Very Low           | Very Low               | \$2,359                                                 |                                                               | \$212                                                                                                                       | \$2,571                                                        | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
| 15                | Coastal<br>Flooding  | Very Low           | Very Low               | \$624                                                   |                                                               | \$8                                                                                                                         | \$632                                                          | 0                                                        |                                                                                                                     | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                                                                       |
|                   | Avalanche            | Not<br>Applicable  | Not<br>Applicable      |                                                         |                                                               |                                                                                                                             |                                                                | 0                                                        | NRI rates avalanche Not Applicable for this county, and no federal declaration for this county names it.            | No recorded events in Storm Events since 1996 (data through 2026-06-30).                                                                                       |
|                   | Tsunami              | Not<br>Applicable  | Not<br>Applicable      |                                                         |                                                               |                                                                                                                             |                                                                | 0                                                        | NRI rates tsunami Not Applicable for this county, and no federal declaration for this county names it.              | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |
|                   | Volcanic<br>Activity | Not<br>Applicable  | Not<br>Applicable      |                                                         |                                                               |                                                                                                                             |                                                                | 0                                                        | NRI rates volcanic activity Not Applicable for this county, and no federal declaration for this county names it.    | No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk. |

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

#### SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

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

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

# Supports B1-b: location

## Where each hazard occurs

| Hazard            | Location                                                                                                                                                                                                  | Census tracts rated<br><i>rated of all tracts</i> |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Avalanche         | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 0 of 59                                           |
| Coastal Flooding  | The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center ( <a href="https://msc.fema.gov">https://msc.fema.gov</a> ) for this county. | 2 of 59                                           |
| Cold Wave         | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Drought           | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 21 of 59                                          |
| Earthquake        | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 59 of 59                                          |
| Hail              | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Heat Wave         | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Hurricane         | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 59 of 59                                          |
| Ice Storm         | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Inland Flooding   | The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center ( <a href="https://msc.fema.gov">https://msc.fema.gov</a> ) for this county. | 59 of 59                                          |
| Landslide         | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 59 of 59                                          |
| Lightning         | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Strong Wind       | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |
| Tornado           | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 59 of 59                                          |
| Tsunami           | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 0 of 59                                           |
| Volcanic Activity | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 0 of 59                                           |
| Wildfire          | Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.                                                                        | 59 of 59                                          |
| Winter Weather    | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 59 of 59                                          |

**SOURCE**  
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

# Supports B1-c: extent

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

| Hazard                           | Scale                         | Records<br><i>count, years</i> | Observed range | Worst recorded event | Most damaging<br>(when different) | How it applies to members | Note                                                             |
|----------------------------------|-------------------------------|--------------------------------|----------------|----------------------|-----------------------------------|---------------------------|------------------------------------------------------------------|
| Avalanche                        | none (count and damage)       | 0                              |                |                      |                                   |                           | Physical measure: in event narratives only; local data required. |
| Coastal Flood, Storm Surge/ Tide | none in data (FIRM for depth) | 0                              |                |                      |                                   |                           | Flood depth: see the FEMA Flood Insurance Rate Map.              |

| Hazard                                          | Scale                          | Records<br><i>count, years</i>   | Observed range                                            | Worst recorded event                                                                                                                                                                                                                                                                                                               | Most damaging<br>(when different)                                      | How it applies to members                                                                           | Note                                                                                                                                                                                                                                                      |
|-------------------------------------------------|--------------------------------|----------------------------------|-----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Cold/Wind Chill, Extreme Cold/Wind Chill        | wind chill                     | 8, 2018 to 2026 (8 zone-level)   | 1 day to 11 days (median 2 days); 7 with a recorded value | 11 consecutive days, 2026-01-23 to 2026-02-02, zone-level                                                                                                                                                                                                                                                                          |                                                                        | Zone-level records: applies countywide; national data do not locate these events within the county. | Wind chill: in event narratives only; local data required.                                                                                                                                                                                                |
| Frost/Freeze (outside NRI Cold Wave definition) | crop damage                    | 23, 2015 to 2021 (23 zone-level) |                                                           | No crop damage reported in 23 records.                                                                                                                                                                                                                                                                                             |                                                                        | Zone-level records: applies countywide; national data do not locate these events within the county. | Temperature: in event narratives only; local data required.                                                                                                                                                                                               |
| Drought                                         | US Drought Monitor D-scale     | 0                                |                                                           |                                                                                                                                                                                                                                                                                                                                    |                                                                        |                                                                                                     | Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.                                                                                      |
| Earthquake                                      | Modified Mercalli (local data) | 0                                |                                                           |                                                                                                                                                                                                                                                                                                                                    |                                                                        |                                                                                                     | No Storm Events record; local data required (e.g., USGS).                                                                                                                                                                                                 |
| Hail                                            | hail size (inches)             | 55, 1976 to 2025                 | 0.75 in to 3.5 in (median 1 in); 55 with a recorded value | 3.5 in hail, 1990-06-08; same size also recorded on 1990-06-08                                                                                                                                                                                                                                                                     | Hail, 2000-05-24, \$10,000 property; crops not reported (2000 dollars) | No event record names a member place.                                                               |                                                                                                                                                                                                                                                           |
| Excessive Heat, Heat                            | heat index (narratives)        | 20, 2016 to 2024 (20 zone-level) | 1 day to 3 days (median 1 day); 12 with a recorded value  | 3 consecutive days, 2019-07-19 to 2019-07-21, zone-level                                                                                                                                                                                                                                                                           |                                                                        | Zone-level records: applies countywide; national data do not locate these events within the county. | Heat index: in event narratives only; local data required.                                                                                                                                                                                                |
| Hurricane, Tropical Storm, Tropical Depression  | Saffir-Simpson                 | 1, 2020 to 2020 (1 zone-level)   |                                                           | Strongest recorded (records with damage, a wind speed or direct casualties first, then storm type, category and wind): Tropical Storm record, 2020-08-04, \$5,000 property; \$0 crops, reported for the zone (2020 dollars); NWS zone MDZ506 (CENTRAL AND SOUTHEAST HOWARD), zone-level: may include parts of neighboring counties |                                                                        | Zone-level records: applies countywide; national data do not locate these events within the county. | Storm Events files every zone of a storm's episode under the storm's event type and category, so a Hurricane (Typhoon) record, especially an inland or remnant one, does not by itself mean hurricane-force winds here; read the damage and wind columns. |
| Ice Storm                                       | Sperry-Piltz (local data)      | 0                                |                                                           |                                                                                                                                                                                                                                                                                                                                    |                                                                        |                                                                                                     | Ice thickness: in event narratives only; local data required.                                                                                                                                                                                             |

| Hazard                                                         | Scale                                                                              | Records<br><i>count, years</i> | Observed range                                                                      | Worst recorded event                                                                                                                                        | Most damaging<br>(when different)                                                      | How it applies to members                                                      | Note                                                                                                                                                                                                                            |
|----------------------------------------------------------------|------------------------------------------------------------------------------------|--------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flash Flood, Flood, Lakeshore Flood                            | damage and flood days (FIRM for depth)                                             | 161, 1996 to 2025              |                                                                                     | Flash Flood, 2016-07-30, \$22,400,000 property; \$0 crops (2016 dollars), 2 direct deaths                                                                   |                                                                                        | No event record names a member place.                                          | Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage can be \$0 or blank even for a major flood, so the worst record here may not be the worst flood; compare FEMA Public Assistance by declaration in B1-d. |
| Debris Flow                                                    | none (count and damage)                                                            | 0                              |                                                                                     |                                                                                                                                                             |                                                                                        |                                                                                | Physical measure: in event narratives only; local data required.                                                                                                                                                                |
| Lightning                                                      | annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names) | 7, 1996 to 2023                |                                                                                     | Lightning, 2002-08-03, \$500,000 property; crops not reported (2002 dollars)                                                                                |                                                                                        | No event record names a member place.                                          | Storm Events lists lightning with damage or casualties; physical measure in event narratives only; local data required.                                                                                                         |
| High Wind and Strong Wind (outside NRI Strong Wind definition) | wind speed (kt and mph)                                                            | 7, 1997 to 2025 (6 zone-level) | 50 kt (58 mph) to 52 kt (60 mph) (median 50 kt (58 mph)); 6 with a recorded value   | 52 kt (60 mph) estimated gust, High Wind, 2017-02-12; NWS zone MDZ506 (CENTRAL AND SOUTHEAST HOWARD), zone-level: may include parts of neighboring counties | Strong Wind, 1997-11-02, \$1,000 property; crops not reported (1997 dollars)           | No event record names a member place. Zone-level records (6) apply countywide. |                                                                                                                                                                                                                                 |
| Thunderstorm Wind                                              | wind speed (kt and mph)                                                            | 350, 1969 to 2026              | 40 kt (46 mph) to 70 kt (81 mph) (median 52 kt (60 mph)); 296 with a recorded value | 70 kt (81 mph) estimated gust, Thunderstorm Wind, 2019-05-23                                                                                                | Thunderstorm Wind, 2022-06-08, \$1,000,000 property; crops not reported (2022 dollars) | No event record names a member place.                                          |                                                                                                                                                                                                                                 |

| Hazard                                                                      | Scale                                   | Records<br><i>count, years</i>   | Observed range                                                            | Worst recorded event                                                                                                  | Most damaging<br>(when different)                                            | How it applies to members                                                                           | Note                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------|-----------------------------------------|----------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tornado                                                                     | Enhanced Fujita (F before Feb 2007)     | 20, 1975 to 2026                 | F/EF0 to F/EF2 (median between F/EF0 and F/EF1); 20 with a recorded value | F2 tornado, 2001-09-24, 6 mi within this county, 100 yd wide, \$1,000,000 property; crops not reported (2001 dollars) | Tornado, 2024-06-05, \$3,000,000 property; crops not reported (2024 dollars) | No event record names a member place.                                                               | From 1996 on, tornado records are per-county segments and length is the path length within this county (NWS Instruction 10-1605); records before 1996 may give the whole path length, including the path outside this county, and before 1996 a tornado is listed once, under the county where it began, with the whole path's rating; counties farther along the path may not list it. Length is not used to rank tornadoes. |
| Tsunami                                                                     | none (count and damage)                 | 0                                |                                                                           |                                                                                                                       |                                                                              |                                                                                                     | Physical measure: in event narratives only; local data required.                                                                                                                                                                                                                                                                                                                                                              |
| Volcanic Ash, Volcanic Ashfall                                              | Volcanic Explosivity Index (local data) | 0                                |                                                                           |                                                                                                                       |                                                                              |                                                                                                     | Physical measure: in event narratives only; local data required.                                                                                                                                                                                                                                                                                                                                                              |
| Wildfire                                                                    | acres burned (local data)               | 0                                |                                                                           |                                                                                                                       |                                                                              |                                                                                                     | Acres burned: in event narratives only; local data required.                                                                                                                                                                                                                                                                                                                                                                  |
| Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet | none in data (snowfall local)           | 98, 2014 to 2026 (98 zone-level) |                                                                           | No damage reported in 98 records.                                                                                     |                                                                              | Zone-level records: applies countywide; national data do not locate these events within the county. | Snow depth: in event narratives only; local data required.                                                                                                                                                                                                                                                                                                                                                                    |

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

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

SOURCES

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>  
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

Supports B1-d: previous occurrences

Declaration rows

22

Counted incidents

18

## Federal disaster declarations for this county

| Declared   | Incident began | FEMA number | Type           | Title                                  | Mapped hazard                                                           | County Public Assistance<br><i>federal share obligated,<br/>nominal dollars</i> | Flags                                       | Notes                       |
|------------|----------------|-------------|----------------|----------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------|-----------------------------|
| 2026-01-24 | 2026-01-23     | EM-3634-MD  | Emergency      | SEVERE WINTER STORM                    | Winter Weather                                                          | none found                                                                      | new since last plan;<br>within last 5 years |                             |
| 2020-03-26 | 2020-01-20     | DR-4491-MD  | Major disaster | COVID-19 PANDEMIC                      | Non-natural, not counted                                                | \$301,886.86                                                                    |                                             |                             |
| 2020-03-13 | 2020-01-20     | EM-3430-MD  | Emergency      | COVID-19                               | Non-natural, not counted                                                | none found                                                                      |                                             | same incident as<br>DR-4491 |
| 2018-07-02 | 2018-05-27     | DR-4376-MD  | Major disaster | SEVERE STORM AND FLOODING              | Inland Flooding                                                         | \$10,323,093.42                                                                 |                                             |                             |
| 2016-09-16 | 2016-07-30     | DR-4279-MD  | Major disaster | SEVERE STORM AND FLOODING              | Inland Flooding                                                         | \$6,494,759.83                                                                  |                                             |                             |
| 2016-03-04 | 2016-01-22     | DR-4261-MD  | Major disaster | SEVERE WINTER STORM AND<br>SNOWSTORM   | Winter Weather                                                          | \$1,757,903.22                                                                  |                                             |                             |
| 2014-04-10 | 2014-02-12     | DR-4170-MD  | Major disaster | SNOWSTORM                              | Winter Weather                                                          | \$715,738.01                                                                    |                                             |                             |
| 2012-11-20 | 2012-10-26     | DR-4091-MD  | Major disaster | HURRICANE SANDY                        | Hurricane                                                               | \$692,463                                                                       |                                             |                             |
| 2012-10-28 | 2012-10-26     | EM-3349-MD  | Emergency      | HURRICANE SANDY                        | Hurricane                                                               | none found                                                                      |                                             | same incident as<br>DR-4091 |
| 2011-10-05 | 2011-09-06     | DR-4038-MD  | Major disaster | REMNANTS OF TROPICAL<br>STORM LEE      | Inland Flooding (primary); also designated:<br>Hurricane                | \$1,515,490.62                                                                  |                                             |                             |
| 2011-08-27 | 2011-08-26     | EM-3335-MD  | Emergency      | HURRICANE IRENE                        | Hurricane                                                               | \$322,782.05                                                                    |                                             |                             |
| 2010-05-06 | 2010-02-05     | DR-1910-MD  | Major disaster | SEVERE WINTER STORMS AND<br>SNOWSTORMS | Winter Weather                                                          | \$919,980.66                                                                    |                                             |                             |
| 2010-02-19 | 2009-12-18     | DR-1875-MD  | Major disaster | SEVERE WINTER STORM AND<br>SNOWSTORM   | Winter Weather                                                          | \$834,620.90                                                                    |                                             |                             |
| 2005-09-13 | 2005-08-29     | EM-3251-MD  | Emergency      | HURRICANE KATRINA<br>EVACUATION        | Hurricane: evacuation support, not a local<br>hazard event; not counted | \$2,599.58                                                                      |                                             |                             |
| 2003-09-19 | 2003-09-18     | DR-1492-MD  | Major disaster | HURRICANE ISABEL                       | Hurricane                                                               | \$704,431.93                                                                    |                                             |                             |
| 2003-03-14 | 2003-02-14     | EM-3179-MD  | Emergency      | SNOW                                   | Winter Weather                                                          | \$353,878.88                                                                    |                                             |                             |
| 2000-04-10 | 2000-01-25     | DR-1324-MD  | Major disaster | SEVERE WINTER STORM                    | Winter Weather                                                          | \$205,066.85                                                                    |                                             |                             |
| 1996-01-11 | 1996-01-06     | DR-1081-MD  | Major disaster | BLIZZARD OF 96 (SEVERE SNOW<br>STORM)  | Winter Weather                                                          | none found                                                                      |                                             |                             |
| 1993-03-16 | 1993-03-13     | EM-3100-MD  | Emergency      | SEVERE SNOWFALL & WINTER<br>STORM      | Winter Weather                                                          | none found                                                                      |                                             |                             |
| 1975-10-04 | 1975-10-04     | DR-489-MD   | Major disaster | HEAVY RAINS & FLOODING                 | Inland Flooding                                                         | none found                                                                      |                                             |                             |

| Declared   | Incident began | FEMA number | Type           | Title                    | Mapped hazard                                         | County Public Assistance                        | Flags | Notes |
|------------|----------------|-------------|----------------|--------------------------|-------------------------------------------------------|-------------------------------------------------|-------|-------|
|            |                |             |                |                          |                                                       | <i>federal share obligated, nominal dollars</i> |       |       |
| 1972-06-23 | 1972-06-23     | DR-341-MD   | Major disaster | TROPICAL STORM AGNES     | Inland Flooding (primary); also designated: Hurricane | none found                                      |       |       |
| 1971-08-17 | 1971-08-17     | DR-309-MD   | Major disaster | SEVERE STORMS & FLOODING | Inland Flooding                                       | none found                                      |       |       |

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

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

Statewide declarations

| Declared   | Incident began | FEMA number | Type           | Title                                | Mapped hazard                                                | Flags | Notes |
|------------|----------------|-------------|----------------|--------------------------------------|--------------------------------------------------------------|-------|-------|
| 1962-03-09 | 1962-03-09     | DR-127-MD   | Major disaster | SEVERE STORMS, HIGH TIDES & FLOODING | Inland Flooding (primary); also designated: Coastal Flooding |       |       |

FEMA recorded these with designated area Statewide and no county. Listed on every county page in the state; not counted with county rows.

**SOURCE**  
FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

Public Assistance not placed in a county in this state: 1 row, \$112,415.86

| Disaster number | Declared   | Applicant                                          | County field in FEMA data | PA obligated                                    | Why not placed                                                                                                    |
|-----------------|------------|----------------------------------------------------|---------------------------|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
|                 |            |                                                    |                           | <i>federal share obligated, nominal dollars</i> |                                                                                                                   |
| 4491            | 2020-03-26 | Board of Child Care of the United Methodist Church | Berkeley County           | \$112,415.86                                    | county field is a county of another state and the applicant name does not identify a place in the declaring state |

FEMA's Public Assistance summaries file these applicants under a county field that is not a county of this state (an Alaska school area, the former Valdez-Cordova Census Area, or another state's county), and the applicant name does not identify one place here. They are listed for the whole state and are not in any county total. Check whether any of them worked in your county.

**SOURCE**  
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)

Previous occurrences by hazard, with explicit no-event rows

| Hazard           | Storm Events records<br><i>full period</i> | Since plan approval<br><i>records</i> | During plan review<br><i>records</i> | Last 5 years<br><i>records</i> | Declared incidents<br><i>distinct incidents</i> | Declared since approval<br><i>distinct incidents</i> | Period             | Statement                                                                                   |
|------------------|--------------------------------------------|---------------------------------------|--------------------------------------|--------------------------------|-------------------------------------------------|------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------|
| Avalanche        | 0                                          | 0                                     | 0                                    | 0                              | 0                                               | 0                                                    | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                              |
| Coastal Flooding | 0                                          | 0                                     | 0                                    | 0                              | 0                                               | 0                                                    | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                              |
| Cold Wave        | 31                                         | 4                                     | 1                                    | 5                              | 0                                               | 0                                                    | 1996 to 2026-06-30 | Includes 23 Frost/Freeze records, event types the NRI definition of this hazard leaves out. |

| <b>Hazard</b>     | <b>Storm Events<br/>records<br/><i>full period</i></b> | <b>Since plan<br/>approval<br/><i>records</i></b> | <b>During plan<br/>review<br/><i>records</i></b> | <b>Last 5<br/>years<br/><i>records</i></b> | <b>Declared<br/>incidents<br/><i>distinct incidents</i></b> | <b>Declared since<br/>approval<br/><i>distinct incidents</i></b> | <b>Period</b>      | <b>Statement</b>                                                                                                 |
|-------------------|--------------------------------------------------------|---------------------------------------------------|--------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------|
| Drought           | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Earthquake        | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                |                    | No Storm Events record; local data required (e.g., USGS).                                                        |
| Hail              | 55                                                     | 1                                                 | 1                                                | 2                                          | 0                                                           | 0                                                                | 1955 to 2026-06-30 |                                                                                                                  |
| Heat Wave         | 20                                                     | 1                                                 | 1                                                | 2                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                  |
| Hurricane         | 1                                                      | 0                                                 | 0                                                | 0                                          | 5                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                  |
| Ice Storm         | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Inland Flooding   | 161                                                    | 8                                                 | 0                                                | 15                                         | 6                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                  |
| Landslide         | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Lightning         | 7                                                      | 0                                                 | 1                                                | 1                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 |                                                                                                                  |
| Strong Wind       | 357                                                    | 29                                                | 15                                               | 52                                         | 0                                                           | 0                                                                | 1955 to 2026-06-30 | Includes 6 High Wind records and 1 Strong Wind record, event types the NRI definition of this hazard leaves out. |
| Tornado           | 20                                                     | 2                                                 | 0                                                | 2                                          | 0                                                           | 0                                                                | 1950 to 2026-06-30 |                                                                                                                  |
| Tsunami           | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Volcanic Activity | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Wildfire          | 0                                                      | 0                                                 | 0                                                | 0                                          | 0                                                           | 0                                                                | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                   |
| Winter Weather    | 98                                                     | 24                                                | 2                                                | 35                                         | 9                                                           | 1                                                                | 1996 to 2026-06-30 |                                                                                                                  |

**SOURCES**

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

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

NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>

**Notable Storm Events records**

| <b>Date</b> | <b>Event type</b>           | <b>Magnitude or<br/>extent</b> | <b>Damage<br/><i>nominal dollars</i></b>                            | <b>Direct<br/>deaths,<br/>injuries<br/><i>indirect not<br/>counted</i></b> | <b>Location</b>                                                                                             | <b>Flags</b>                                   | <b>Why listed</b>                                                |
|-------------|-----------------------------|--------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------------------|
| 2026-01-23  | Extreme Cold/<br>Wind Chill |                                | \$0 property; \$0 crops,<br>reported for the zone (2026<br>dollars) | 0, 0                                                                       | NWS zone MDZ506 (CENTRAL AND SOUTHEAST<br>HOWARD), zone-level: may include parts of<br>neighboring counties | new since last<br>plan; within last<br>5 years | B1-c worst recorded: Cold/Wind Chill,<br>Extreme Cold/Wind Chill |

| Date       | Event type        | Magnitude or extent                      | Damage<br><i>nominal dollars</i>                                  | Direct deaths,<br>injuries<br><i>indirect not counted</i> | Location                                                                                              | Flags | Why listed                                                                          |
|------------|-------------------|------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|
| 2020-08-04 | Tropical Storm    |                                          | \$5,000 property; \$0 crops, reported for the zone (2020 dollars) | 0, 0                                                      | NWS zone MDZ506 (CENTRAL AND SOUTHEAST HOWARD), zone-level: may include parts of neighboring counties |       | B1-c worst recorded: Hurricane, Tropical Storm, Tropical Depression                 |
| 2019-07-19 | Excessive Heat    |                                          | damage not reported                                               | 0, 0                                                      | NWS zone MDZ505 (NORTHWEST HOWARD), zone-level: may include parts of neighboring counties             |       | B1-c worst recorded: Excessive Heat, Heat                                           |
| 2019-05-23 | Thunderstorm Wind | 70 kt (81 mph) estimated gust            | damage not reported                                               | 0, 0                                                      | SAVAGE                                                                                                |       | B1-c worst recorded: Thunderstorm Wind                                              |
| 2018-05-27 | Flash Flood       |                                          | \$10,500,000 property; \$0 crops (2018 dollars)                   | 1, 0                                                      | ELLCOTT CITY                                                                                          |       | deaths or injuries recorded                                                         |
| 2017-02-12 | High Wind         | 52 kt (60 mph) estimated gust            | damage not reported                                               | 0, 0                                                      | NWS zone MDZ506 (CENTRAL AND SOUTHEAST HOWARD), zone-level: may include parts of neighboring counties |       | B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition) |
| 2016-07-30 | Flash Flood       |                                          | \$22,400,000 property; \$0 crops (2016 dollars)                   | 2, 0                                                      | ELLCOTT CITY to BRINKLEIGH MANOR                                                                      |       | deaths or injuries recorded                                                         |
| 2015-05-19 | Flood             |                                          | \$10,000 property; \$0 crops (2015 dollars)                       | 1, 0                                                      | SAVAGE                                                                                                |       | deaths or injuries recorded                                                         |
| 2002-08-03 | Lightning         |                                          | \$500,000 property; crops not reported (2002 dollars)             | 0, 0                                                      | CLARKSVILLE                                                                                           |       | B1-c worst recorded: Lightning                                                      |
| 2001-09-24 | Tornado           | F2, 6 mi within this county, 100 yd wide | \$1,000,000 property; crops not reported (2001 dollars)           | 0, 0                                                      | NORTH LAUREL                                                                                          |       | B1-c worst recorded: Tornado                                                        |
| 1997-11-02 | Strong Wind       | speed not recorded                       | \$1,000 property; crops not reported (1997 dollars)               | 0, 0                                                      | LONG CORNER                                                                                           |       | B1-c most damaging: High Wind and Strong Wind (outside NRI Strong Wind definition)  |
| 1990-06-08 | Hail              | 3.5 in                                   | damage not recorded (pre-1996 record)                             | 0, 0                                                      | location not recorded                                                                                 |       | B1-c worst recorded: Hail                                                           |

**The full list is in the XLSX file, sheet "B1-d Storm Events history" (750 rows).**

Storm Events records are more complete after 1996; before 1996 only Tornado (from 1950), Hail and Thunderstorm Wind (from 1955) exist. Zone-level records are placed with NWS zone-county files, which exist from 2020 on; an earlier record is placed by its zone number in the nearest later file only when its zone name matches that file, records from zones NWS renumbered are placed by name or left out, and a record whose zone is in no known file is left out of every count, so counts before 2020 can be low. Some current zones are also missing from the NWS files, so recent counts can be low too.

**SOURCES**

NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>  
 NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>  
 FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

State-declared emergencies are not in federal data. Add them from your state emergency management agency.

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

## Supports B1-e: probability

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

| 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        |                                                            | events per year                         |                                                                                           |               |                                                          |                                                                                                          | 1994 to 2023 (30 years)                    | see B1-f   | Not Applicable in NRI for this county; no descriptor.                                                                                                                                                                                                                                                                                                                                                                                                                |
| Coastal Flooding | 0.012                                                      | events per year at a location (modeled) | about 0.012 per year at a given location in the county                                    |               | Storm Events records in 0 of 30 years, 1996 to 2025 (0%) | not shown                                                                                                | modeled                                    | see B1-f   | No Storm Events record of this hazard, 1996 to 2025; descriptor not assigned (the NRI value is the chance at a location in the county, not how often the hazard affects the county)                                                                                                                                                                                                                                                                                  |
| Cold Wave        | 1.6                                                        | event-days per year                     | about 1.6 days per year                                                                   | Likely        | event-days in 4 of 30 years, 1996 to 2025 (13.3%)        | 30.4                                                                                                     | 2005-11-12 to 2024-11-12 (19 years)        | countywide | NRI gives about 1.6 cold wave event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 4 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together. Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves. |
| Drought          | 5.33                                                       | event-days per year                     | about 5.33 days per year                                                                  |               | event-days in 0 of 30 years, 1996 to 2025 (0%)           | 161                                                                                                      | 2000 to 2025 (25.25 years; D3 and D4 only) | countywide | No recorded event-days, 1996 to 2025; descriptor not assigned                                                                                                                                                                                                                                                                                                                                                                                                        |
| Earthquake       | 0.00101                                                    | annual probability at a location        | chance a given location in the county has at least minor-damage shaking in a year: 0.101% |               |                                                          | not shown                                                                                                | modeled                                    | see B1-f   | Descriptor not assigned: the NRI value is the chance at a location in the county, not how often the hazard affects the county, and Storm Events does not record earthquakes.                                                                                                                                                                                                                                                                                         |
| Hail             | 3.68                                                       | events per year                         | about 3.68 per year                                                                       | Highly likely | FEMA annualized frequency (modeled)                      | 139.8 (modeled)                                                                                          | 1986 to 2023 (38 years)                    | countywide |                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Heat Wave        | 5.32                                                       | event-days per year                     | about 5.32 days per year                                                                  | Likely        | event-days in 8 of 30 years, 1996 to 2025 (26.7%)        | 91.5                                                                                                     | 2005-11-12 to 2024-11-12 (19 years)        | countywide | NRI gives about 5.32 heat wave event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 8 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.                                                                                                   |
| Hurricane        | 0.0971                                                     | events per year                         | about 1 in 10 years                                                                       | Possible      | FEMA annualized frequency (modeled)                      | 30                                                                                                       | 1851 to 2024 (Atlantic)                    | see B1-f   | NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are counted separately in B1-d and need not match.                                                                                                                                                                                                                                                                                                        |

| 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                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------|---------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ice Storm         | 0.892                                                      | event-days per year                                                               | about 0.892 days per year                                       |               | event-days in 0 of 30 years, 1996 to 2025 (0%)           | 60                                                                                                       | 1946-12-31 to 2014-02-12 (67 years)       | countywide | No recorded event-days, 1996 to 2025; descriptor not assigned                                                                                                                                                                                                                                                                                                          |
| Inland Flooding   | 2.57                                                       | event-days per year                                                               | about 2.57 days per year                                        | Likely        | event-days in 25 of 30 years, 1996 to 2025 (83.3%)       | 72                                                                                                       | 1996 to 2023 (28 years)                   | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                        |
| Landslide         | 0.237                                                      | events per year (modeled)                                                         | about 1 in 4 years                                              | Likely        | FEMA annualized frequency (modeled)                      | not shown                                                                                                | modeled                                   | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                        |
| Lightning         | 38.4                                                       | days per year with a strike                                                       | about 38.4 days per year                                        | Highly likely | FEMA annualized frequency (modeled)                      | not shown                                                                                                | 1995 to 2023 (29 years; CONUS)            | countywide |                                                                                                                                                                                                                                                                                                                                                                        |
| Strong Wind       | 8.04                                                       | events per year                                                                   | about 8.04 per year                                             | Highly likely | FEMA annualized frequency (modeled)                      | 306                                                                                                      | 1986 to 2023 (38 years)                   | countywide |                                                                                                                                                                                                                                                                                                                                                                        |
| Tornado           | 0.188                                                      | events per year                                                                   | about 1 in 5 years                                              | Likely        | FEMA annualized frequency (modeled)                      | not shown                                                                                                | 1950 to 2023 (EF2+); 1986 to 2023 (EF0-1) | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                        |
| Tsunami           |                                                            | annual probability at the most exposed location (used in place of a county value) |                                                                 |               |                                                          | not shown                                                                                                | modeled                                   | see B1-f   | Not Applicable in NRI for this county; no descriptor.                                                                                                                                                                                                                                                                                                                  |
| Volcanic Activity |                                                            | annual probability                                                                |                                                                 |               |                                                          | not shown                                                                                                | modeled                                   | see B1-f   | Not Applicable in NRI for this county; no descriptor.                                                                                                                                                                                                                                                                                                                  |
| Wildfire          | 0.0000278                                                  | annual probability at a location                                                  | chance a given location in the county burns in a year: 0.00278% |               | Storm Events records in 0 of 30 years, 1996 to 2025 (0%) | not shown                                                                                                | modeled                                   | see B1-f   | No Storm Events record of this hazard, 1996 to 2025; descriptor not assigned (the NRI value is the chance at a location in the county, not how often the hazard affects the county)                                                                                                                                                                                    |
| Winter Weather    | 12                                                         | event-days per year                                                               | about 12 days per year                                          | Likely        | event-days in 11 of 30 years, 1996 to 2025 (36.7%)       | 229                                                                                                      | 2005-11-12 to 2024-11-12 (19 years)       | countywide | NRI gives about 12 winter weather event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 11 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together. |

FEMA annualized frequency (modeled) comes from the National Risk Index v1.20 (December 2025). It is not recorded events divided by years, and what it measures depends on the hazard. For most hazards it estimates how often the hazard affects this county each year: it counts events or event-days (drought, heat wave, cold wave, winter weather, ice storm and inland flooding are in days per year; lightning is the

number of days per year with a recorded cloud-to-ground strike, from the NOAA Storm Prediction Center daily lightning climatology); it may count events in the surrounding area (hail, strong wind, tornado, hurricane and ice storm use a 49 km grid and buffers) and is averaged over the county's area; and some hazards use a minimum value for places with no recorded event. Earthquake, wildfire and coastal flooding are different: FEMA computes them for each census block and averages them over the county, so the value is the chance (for coastal flooding, the modeled number of floods per year) at a location in the county, which is lower than the chance that the hazard strikes somewhere in the county. Earthquake is the chance of at least minor-damage shaking (U.S. Geological Survey model); wildfire is the chance that a location burns in a large fire (U.S. Forest Service burn probability); coastal flooding comes from FEMA flood zones and NOAA high-tide flooding, so it can be above 1 where high-tide flooding is frequent. Tsunami is the value at the county's most exposed location, from recorded events and modeled return periods. For these four hazards the packet gives no "1 in N years" and takes the descriptor from Storm Events (none for earthquake) unless the value is 1 or more a year. Landslide is a U.S. Geological Survey modeled county rate spread by slope susceptibility. Volcanic activity is the chance that a volcano affecting the county erupts in a year. Drought counts only extreme and exceptional drought (D3 and D4). Source: FEMA, National Risk Index Technical Documentation v1.20, sections 5.2.2 (Table 5), 5.2.3, 7.4, 10.4, 16.5, 17.1, 17.3.1, 17.5, 20.3.1, 21.4, 22.4 and 6 to 23.

**SOURCES**  
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)  
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Descriptor scale used in this packet (defined per unit)

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

**SOURCES**  
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)  
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Intensity bands: historical frequency (Storm Events)

| Hazard                                  | Band                      | Years        | Events<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 | 36                                    | 30              | 1.2                                      |
| Hail                                    | 2.00 in+                  | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Strong Wind (Thunderstorm Wind records) | 50-64 kt                  | 1996 to 2025 | 274                                   | 30              | 9.13                                     |
| Strong Wind (Thunderstorm Wind records) | 65 kt+                    | 1996 to 2025 | 5                                     | 30              | 0.167                                    |
| Strong Wind (Thunderstorm Wind records) | unmeasured or below 50 kt | 1996 to 2025 | 32                                    | 30              | 1.07                                     |
| Tornado                                 | EF0-1                     | 1996 to 2025 | 13                                    | 30              | 0.433                                    |
| Tornado                                 | EF2-3                     | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |

| Hazard  | Band          | Years        | Events<br><i>county-coded records</i> | Years in period | Events per year<br><i>events / years</i> |
|---------|---------------|--------------|---------------------------------------|-----------------|------------------------------------------|
| Tornado | EF4-5         | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Tornado | unrated (EFU) | 1996 to 2025 | 0                                     | 30              | 0                                        |

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

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

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

## Supports B1-f: variation across the planning area

### Range of census tract risk within the county

| Hazard           | Tracts<br><i>rated of all</i> | Risk score<br>min<br><i>NRI score, 0 to 100</i> | Median | Max  | Tracts by rating                                                  | Note                                                                                                                                                                                                                                                                                                                                                           |
|------------------|-------------------------------|-------------------------------------------------|--------|------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche        | 0 of 59                       |                                                 |        |      | Not Applicable 59                                                 |                                                                                                                                                                                                                                                                                                                                                                |
| Coastal Flooding | 2 of 59                       | 73.2                                            | 74.0   | 74.7 | Very Low 2, No Rating 57                                          |                                                                                                                                                                                                                                                                                                                                                                |
| Cold Wave        | 59 of 59                      | 22.6                                            | 33.3   | 55.0 | Relatively Moderate 1, Relatively Low 58                          | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.                                                                                                                           |
| Drought          | 21 of 59                      | 68.1                                            | 86.3   | 97.4 | Relatively Moderate 7, Relatively Low 6, Very Low 8, No Rating 38 | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally. |
| Earthquake       | 59 of 59                      | 22.8                                            | 46.2   | 74.7 | Relatively Low 33, Very Low 26                                    |                                                                                                                                                                                                                                                                                                                                                                |
| Hail             | 59 of 59                      | 42.6                                            | 60.0   | 80.5 | Relatively Moderate 6, Relatively Low 53                          | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.                                                                                                                           |
| Heat Wave        | 59 of 59                      | 30.5                                            | 64.7   | 89.5 | Relatively High 1, Relatively Moderate 42, Relatively Low 16      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.                                                                                                                           |
| Hurricane        | 59 of 59                      | 55.6                                            | 66.4   | 81.1 | Relatively Moderate 2, Relatively Low 57                          |                                                                                                                                                                                                                                                                                                                                                                |
| Ice Storm        | 59 of 59                      | 5.0                                             | 34.7   | 57.0 | Relatively Low 31, Very Low 28                                    | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.                                                                                                                           |
| Inland Flooding  | 59 of 59                      | 5.0                                             | 26.8   | 68.0 | Relatively Moderate 9, Relatively Low 33, Very Low 17             |                                                                                                                                                                                                                                                                                                                                                                |
| Landslide        | 59 of 59                      | 26.4                                            | 55.6   | 86.1 | Relatively Low 6, Very Low 53                                     |                                                                                                                                                                                                                                                                                                                                                                |

| Hazard            | Tracts<br><i>rated of<br/>all</i> | Risk<br>score<br>min<br><i>NRI score,<br/>0 to 100</i> | Median | Max  | Tracts by rating                                             | Note                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------|--------------------------------------------------------|--------|------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   |                                   |                                                        |        |      |                                                              |                                                                                                                                                                                                                                      |
| Lightning         | 59 of 59                          | 35.0                                                   | 64.8   | 92.1 | Relatively High 10, Relatively Moderate 42, Relatively Low 7 | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Strong Wind       | 59 of 59                          | 44.5                                                   | 74.7   | 91.2 | Relatively High 10, Relatively Moderate 46, Relatively Low 3 | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |
| Tornado           | 59 of 59                          | 17.7                                                   | 31.0   | 48.3 | Relatively Low 35, Very Low 24                               |                                                                                                                                                                                                                                      |
| Tsunami           | 0 of 59                           |                                                        |        |      | Not Applicable 59                                            |                                                                                                                                                                                                                                      |
| Volcanic Activity | 0 of 59                           |                                                        |        |      | Not Applicable 59                                            |                                                                                                                                                                                                                                      |
| Wildfire          | 59 of 59                          | 19.4                                                   | 38.6   | 58.9 | Very Low 59                                                  |                                                                                                                                                                                                                                      |
| Winter Weather    | 59 of 59                          | 58.4                                                   | 82.8   | 95.9 | Very High 1, Relatively High 41, Relatively Moderate 17      | National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally. |

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

**SOURCE**  
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

Per-member block (Starter, confirm locally)

| Member        | Type   | Plan status                  | Repetitive<br>loss<br><i>FMA RL and<br/>SRL (44 CFR<br/>77.2); repeat-<br/>flood, any<br/>definition</i> | Public Assistance<br>matched<br><i>federal share obligated,<br/>nominal dollars</i> | Event records<br>naming this<br>place<br><i>all years; since the<br/>member's plan</i> | Notes                                                                                           |
|---------------|--------|------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
|               |        |                              |                                                                                                          |                                                                                     |                                                                                        |                                                                                                 |
| Howard County | County | Approved, expires 2028-11-05 | FMA RL 9, SRL 6; any 46                                                                                  | \$13,631,020.36                                                                     | 0; 0                                                                                   | Includes \$48,088.47 for declarations not counted as hazard incidents (DR-4491-MD, EM-3251-MD). |

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

School districts and special districts get a plan clock row only.

**SOURCES**  
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)  
FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)  
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)  
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Supports B2-a and B2-b: assets and impacts

Local data required

County-level starter. The plan must describe impacts for each participant and its own assets.

- Critical facilities and lifelines per hazard
- A problem statement per participant per hazard
- Changes in development in hazard-prone areas since the last approval, or a statement of none (E1-a)
- Future assets

### County-level starter: exposure, expected annual loss and damage since the plan

| Hazard           | Building exposure<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> | EAL population equivalence<br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2023-11-06<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        |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county                                                                                                                                                                 |
| Coastal Flooding | \$746,723,712                               |                                                | 3,450                               | \$624                                            |                                                    | \$8                                                                                                              | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Cold Wave        | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$91,294                                         | \$31,667                                           | \$1,661,819                                                                                                      | 0.000124%                                                         |                                                                                                           | \$0                                                                               |                                                                  |                                                                                                                                                                                                       |
| Drought          |                                             | \$26,244,400                                   |                                     |                                                  | \$1,167,602                                        |                                                                                                                  | 4.45% (agriculture)                                               |                                                                                                           |                                                                                   |                                                                  | NRI has no building exposure for this hazard; agriculture shown                                                                                                                                       |
| Earthquake       | \$122,315,617,991                           |                                                | 332,317                             | \$1,792,631                                      |                                                    | \$443,499                                                                                                        | 0.00147%                                                          |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Hail             | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$1,007,021                                      | \$8,275                                            | \$1,629                                                                                                          | 0.00137%                                                          |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Heat Wave        | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$2                                              | \$55                                               | \$4,811,959                                                                                                      | under 0.0001%                                                     |                                                                                                           | \$0                                                                               |                                                                  |                                                                                                                                                                                                       |
| Hurricane        | \$73,364,301,263                            | \$35,092,108                                   | 332,252                             | \$3,443,564                                      | \$142,012                                          | \$113,199                                                                                                        | 0.00469%                                                          |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Ice Storm        | \$73,250,144,684                            |                                                | 331,801                             | \$157,218                                        |                                                    | \$59,621                                                                                                         | 0.000215%                                                         |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Inland Flooding  | \$73,357,672,745                            | \$534,938                                      | 2,738                               | \$26,098,580                                     | \$13,730                                           | \$3,777,649                                                                                                      | n/a (see note)                                                    | \$0                                                                                                       |                                                                                   |                                                                  | NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/ B2-b. EAL as % of exposure: n/a. |
| Landslide        | \$1,974,995,458                             |                                                | 9,077                               | \$2,359                                          |                                                    | \$212                                                                                                            | 0.000119%                                                         |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Lightning        | \$73,366,856,902                            |                                                | 332,270                             | \$88,656                                         |                                                    | \$1,402,150                                                                                                      | 0.000121%                                                         |                                                                                                           |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Strong Wind      | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$720,633                                        | \$51,945                                           | \$2,446,432                                                                                                      | 0.000982%                                                         | \$448,000                                                                                                 | \$0                                                                               |                                                                  |                                                                                                                                                                                                       |
| Tornado          | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$1,275,871                                      | \$512                                              | \$298,140                                                                                                        | 0.00174%                                                          | \$3,200,000                                                                                               |                                                                                   |                                                                  |                                                                                                                                                                                                       |
| Tsunami          |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county                                                                                                                                                                 |

| 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> | EAL population equivalence<br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2023-11-06<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                                  |
|-------------------|---------------------------------------------|------------------------------------------------|-------------------------------------|--------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------|
| Volcanic Activity |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county |
| Wildfire          | \$5,671,676,942                             | \$2,487,225                                    | 36,127                              | \$7,285                                          | \$1                                                | \$1,570                                                                                                          | 0.000128%                                                         |                                                                                                           |                                                                                   |                                                                  |                                       |
| Winter Weather    | \$73,366,856,902                            | \$35,092,108                                   | 332,270                             | \$42,819                                         | \$11                                               | \$802,647                                                                                                        | under 0.0001%                                                     |                                                                                                           | \$0                                                                               | none found (1 declaration)                                       |                                       |

Totals since 2023-11-06 (Storm Events through 2026-06-30): 39 county-coded records, 38 with a damage value recorded (including \$0), \$3,648,000; 30 zone-level records, 12 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance on counted declarations none found (1 declaration, 0 with PA).

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

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

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)  
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>  
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>  
FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)  
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)  
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Supports B2-a: context

County context

| Measure                                                                                                                                                                       | Value            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|
| Population                                                                                                                                                                    | 332,270          |
| Building value (total, not at risk)                                                                                                                                           | \$73,366,856,902 |
| Agriculture value (total, not at risk)                                                                                                                                        | \$35,092,108     |
| NRI risk rating (all hazards)                                                                                                                                                 | Relatively Low   |
| Expected annual loss, buildings and agriculture, all hazards                                                                                                                  | \$36,144,367     |
| 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) | \$15,820,534     |
| Social vulnerability rating                                                                                                                                                   | Very Low         |
| Community resilience rating                                                                                                                                                   | Very High        |
| NRI version                                                                                                                                                                   | December 2025    |

FEMA's all-hazard expected annual loss total adds buildings, agriculture and population equivalence; the two parts are shown separately so the property figure is not read as including the statistical value of life.

SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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)

## Supports B2-c: repetitive loss

### Repetitive loss in this county, both definitions

| Definition                                    | Properties | Severe repetitive loss                               | Properties |
|-----------------------------------------------|------------|------------------------------------------------------|------------|
| Repetitive loss, FMA definition (44 CFR 77.2) | 9          | Severe repetitive loss, FMA definition (44 CFR 77.2) | 6          |
| Repetitive loss, NFIP insurance definition    | 46         | Severe repetitive loss, NFIP insurance definition    | 5          |

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

#### SOURCES

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

### Repeat-flood properties: county total and NFIP communities

| Scope                                       | RL, FMA<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                                | 9                            | 6                             | 46                            | 5                              | 47                                | 30                             | 29                                     |
| HOWARD COUNTY*                              | 9                            | 6                             | 45                            | 5                              | 46                                | 30                             | 29                                     |
| Unknown (community ID Unknown in FEMA data) | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |

#### SOURCES

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

### Repeat-flood properties by plan member (NFIP community)

| Member        | NFIP community ID | RL, FMA<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> | Note |
|---------------|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|------|
| Howard County | 240044            | 9                            | 6                             | 45                            | 5                              | 46                                | 30                             | 29                                     |      |

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

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

#### SOURCES

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

### County repeat-flood properties by occupancy group

| Occupancy group           | RL, FMA<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 | 2                            | 2                             | 17                            | 1                              | 18                                | 5                              | 10                                     |
| 2 to 4 unit residential   | 1                            | 0                             | 4                             | 0                              | 4                                 | 2                              | 2                                      |

| 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> |
|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| other residential | 0                            | 0                             | 2                             | 0                              | 2                                 | 2                              | 1                                      |
| non-residential   | 6                            | 4                             | 23                            | 4                              | 23                                | 21                             | 16                                     |
| not reported      | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |

Institutional properties cannot be separated in this data: FEMA's occupancy groups have no institutional class, so they fall in non-residential or other residential in the table by occupancy group.

#### SOURCES

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

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

FMA RL and FMA SRL are the Flood Mitigation Assistance definitions (44 CFR 77.2), the ones the FEMA Local Mitigation Planning Policy Guide cites; OpenFEMA's fmaRI field description omits the Increased Cost of Compliance clause of 44 CFR 77.2(i). NFIP repetitive loss (FEMA insurance definition, nfipRI) is 2 or more claims over \$1,000 in 10 years and can drop to false when a property is mitigated. Also shown: NFIP severe repetitive loss, any category, mitigated and currently insured.

Your state NFIP coordinator's list may use the NFIP insurance definition, so its counts can be higher.

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

Counts may differ from your state NFIP coordinator's list, which is the source the Handbook names.

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 37 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

## Sources

Every table above lists its own sources. The full list, for the plan's bibliography (FEMA review item A4-a):

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, [https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI\\_Table\\_Counties.zip](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 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-28, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gazetteer/2024\\_Gaz\\_counties\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gaz\\_place\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gaz\\_unsd\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gaz\\_elsd\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gaz\\_scsd\\_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scsd_national.zip), [https://www2.census.gov/geo/docs/reference/codes2020/national\\_place\\_by\\_county2020.txt](https://www2.census.gov/geo/docs/reference/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)

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

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File hazard-plain\_2026-10\_MD\_24027. Preview: automated baseline.