

Door County, WI

Risk-assessment baseline packet

County FIPS: 55029 Release: 2026-10 Data as of: 2026-09-30 Storm Events data through: 2026-06-30

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Summary

Plan status as of 2026-09-30: Approved, expires 2027-11-13. Plan: Door County (FEMA plan 108476), approved 2022-11-14.

Since the plan was approved on 2022-11-14: no new hazard declaration and 52 NOAA Storm Events records; details under "What changed since your last plan".

Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$6,931,727 a year), Cold Wave (\$5,137,714) and Tornado (\$1,124,980).

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

TERMS USED

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

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

NFIP: National Flood Insurance Program.

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

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

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

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

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

FIPS: the federal code for a place; 55029 is this area.

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

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

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

CFR: Code of Federal Regulations.

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

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

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Plan clock

Status:Approved, expires 2027-11-13

Approved:2022-11-14

Plan:Door County (FEMA plan 108476)

Days to expiry:409

What changed since your last plan (approved 2022-11-14)

New federal declarations:none

Repetitive loss now:FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 3

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

Storm Events records since approval:52 records (data through 2026-06-30)

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

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry negative = days since expiry	Update underway	Notes
Door County	County	Approved, expires 2027-11-13	Door County (FEMA plan 108476)	2022-11-14	2027-11-13	409		
Egg Harbor village	Village	Approved, expires 2027-11-13	Door County (FEMA plan 108476)	2022-11-14	2027-11-13	409		this jurisdiction approved 2023-06-15
Ephraim village	Village	Approved, expires 2027-11-13	Door County (FEMA plan 108476)	2022-11-14	2027-11-13	409		this jurisdiction approved 2023-06-15
Forestville village	Village	Plan 108476 approved 2022-11-14, pending adoption here; not yet eligible	Door County (FEMA plan 108476), pending adoption here	2022-11-14 by FEMA; not yet adopted here	2027-11-13 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Sister Bay village	Village	Approved, expires 2027-11-13	Door County (FEMA plan 108476)	2022-11-14	2027-11-13	409		this jurisdiction approved 2023-06-15
Sturgeon Bay city	City	Approved, expires 2027-11-13	Door County (FEMA plan 108476)	2022-11-14	2027-11-13	409		this jurisdiction approved 2023-06-15

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

Supports FEMA checklist item B1-a: hazard identification

Hazards NRI does not cover (local data needed)

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

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

Sources: 5, 6

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
1	Inland Flooding	Relatively Low	Relatively Low	\$6,928,922	\$1,487	\$1,318	\$6,931,727	7	
2	Cold Wave	Relatively Moderate	Relatively High	\$9	\$155,721	\$4,981,984	\$5,137,714	12	
3	Tornado	Relatively Low	Relatively Low	\$790,808	\$692	\$333,479	\$1,124,980	4	
4	Hail	Relatively Low	Relatively Low	\$405,023	\$167,262	\$36,911	\$609,196	70	
5	Strong Wind	Relatively Low	Relatively Low	\$100,919	\$89,756	\$295,388	\$486,063	144	Includes 19 High Wind and 19 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
6	Lightning	Relatively Low	Relatively Low	\$31,490	n/a	\$185,892	\$217,382	7	
7	Ice Storm	Relatively Low	Relatively Low	\$51,124	n/a	\$1,336	\$52,460	2	
8	Wildfire	Very Low	Very Low	\$24,335	\$25	\$1,113	\$25,473	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
9	Winter Weather	Relatively Low	Relatively Low	\$6,679	\$534	\$15,960	\$23,174	108	
10	Coastal Flooding	Very Low	Very Low	\$15,682	n/a	\$523	\$16,205	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
11	Heat Wave	Very Low	Very Low	\$200	under \$1	\$15,822	\$16,023	5	
12	Earthquake	Very Low	Very Low	\$10,781	n/a	\$2,125	\$12,906		Storm Events does not record earthquakes.

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
13	Landslide	Very Low	Very Low	\$114	n/a	\$520	\$634	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
14	Drought	No Rating	No Expected Annual Losses	n/a	\$0	n/a	\$0	10	
15	Hurricane	No Rating	No Expected Annual Losses	\$0	\$0	\$0	\$0	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Tsunami	Insufficient Data	Insufficient Data	n/a	n/a	n/a	n/a	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

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

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

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

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

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

Supports FEMA checklist item B1-b: hazard location

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

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

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

Source: 5

Hazard	Highest-rated census tracts <i>NRI risk rating, score 0 to 100</i>
Earthquake	tract 1007 (Very Low, 14.0); tract 1008 (Very Low, 10.9); tract 1004 (Very Low, 9.0)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 1004 (Relatively Low, 86.1); tract 1003 (Relatively Low, 84.3); tract 1001 (Relatively Low, 83.4)
Tornado	tract 1008 (Relatively High, 75.0); tract 1007 (Relatively High, 74.9); tract 1004 (Relatively Moderate, 70.6)
Tsunami	no tract has a National Risk Index rating for this hazard
Wildfire	tract 1001 (Relatively Low, 81.7); tract 1004 (Relatively Low, 81.3); tract 1003 (Relatively Low, 81.1)

Up to 3 census tracts per hazard, highest National Risk Index rating first, then highest score; a tract number is the Census tract number (for example 1007 is Census Tract 1007). FEMA's Resilience Analysis and Planning Tool maps the National Risk Index for every tract: <https://www.fema.gov/emergency-managers/practitioners/resilience-analysis-and-planning-tool>

Supports FEMA checklist item B1-c: hazard extent

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

Sources: 6, 7

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Coastal Flood, Storm Surge/ Tide	none in data (flood depth: FIRM)	0					Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	12 records, 1996 to 2026 (12 zone-level)	1 day to 7 days (median 2 days); 11 with a recorded value	7 consecutive days, 1996-01-30 to 1996-02-05, zone-level		Countywide (zone-level records).	
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	0					
Drought	U.S. Drought Monitor scale (D0 to D4)	10 records, 1999 to 2024 (10 zone-level)	3 days to 38 days (median 31 days); 7 with a recorded value	38 days (about 1.2 months), 2024-10-01 to 2024-11-07, a run of 2 consecutive Storm Events drought records, zone-level		Countywide (zone-level records).	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	83 records, 1963 to 2026	0.75 in to 3 in (median 1 in); 83 with a recorded value	3 in hail, 2001-08-09	Hail, 2014-07-14, property not reported; \$3,500,000 crops (2014 dollars)	Event records naming jurisdictions in the plan: Sturgeon Bay city (14 records), Egg Harbor village (10 records), Forestville village (5 records), Sister Bay village (4 records), Ephraim village (2 records).	
Excessive Heat, Heat	heat index (in event narratives)	5 records, 1999 to 2026 (5 zone-level)	1 day to 9 days (median 1.5 days); 4 with a recorded value	9 consecutive days, 1999-07-23 to 1999-07-31, zone-level		Countywide (zone-level records).	Heat records from November to March (unseasonable warmth, not a heat wave) are counted but not used for the longest run.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's type; flooding from the storm is filed as Flood or Flash Flood records.
Ice Storm	Sperry-Piltz ice scale (local data)	2 records, 1996 to 2025 (2 zone-level)		No damage reported in 2 records.		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	7 records, 1996 to 2024 (5 zone-level)		Flash Flood, 2014-09-05, \$75,000 property; \$0 crops (2014 dollars)		Event records naming jurisdictions in the plan: Ephraim village (1 record). Zone-level records (5) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	7 records, 1997 to 2016		Lightning, 2010-07-14, \$433,700 property; \$0 crops (2010 dollars)		Event records naming jurisdictions in the plan: Sturgeon Bay city (3 records), Ephraim village (1 record), Sister Bay village (1 record).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	38 records, 1996 to 2021 (38 zone-level)	36 kt (41 mph) to 68 kt (78 mph) (median 52 kt (60 mph)); 19 with a recorded value	68 kt (78 mph) measured gust, High Wind, 2003-11-12; NWS zone WIZ022	High Wind, 1998-11-10, \$50,000 property; crops not reported (zone total, 1998 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	139 records, 1966 to 2026	50 kt (58 mph) to 105 kt (121 mph) (median 52 kt (60 mph)); 112 with a recorded value	105 kt (121 mph), measurement type not recorded, Thunderstorm Wind, 1983-07-21	Thunderstorm Wind, 2025-08-09, \$431,000 property; \$0 crops (2025 dollars)	Event records naming jurisdictions in the plan: Sturgeon Bay city (32 records), Egg Harbor village (16 records), Sister Bay village (4 records), Ephraim village (2 records), Forestville village (2 records).	
Tornado	Enhanced Fujita (Fujita before Feb 2007)	10 records, 1956 to 2025	F/EF0 to F/EF3 (median between F/EF1 and F/EF2); 10 with a recorded value	F3 tornado, 1998-08-23, 5.1 mi within this county, 1,300 yd wide, \$4,740,000 property; \$1,770,000 crops (1998 dollars), 2 direct injuries		Event records naming jurisdictions in the plan: Egg Harbor village (1 record), Ephraim village (1 record), Forestville village (1 record).	Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
Tsunami	none (count and damage only)	0					
Wildfire	acres burned (local data)	0					
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	108 records, 1996 to 2026 (108 zone-level)		Winter Storm, 2018-04-13, \$75,000 property; \$0 crops (2018 dollars); NWS zone WIZ022		Countywide (zone-level records).	

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

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

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 6 declarations covering 3 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Notes
2020-04-04	2020-01-20	DR-4520-WI	Major disaster	COVID-19 Pandemic	Non-natural, not counted	no Public Assistance recorded	
2020-03-13	2020-01-20	EM-3454-WI	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	same incident as DR-4520
2005-09-13	2005-08-29	EM-3249-WI	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded	
2001-01-24	2000-12-11	EM-3163-WI	Emergency	Snow	Winter Weather	\$59,582.36	
1976-06-17	1976-06-17	EM-3014-WI	Emergency	Drought	Drought	no Public Assistance recorded	
1973-04-27	1973-04-27	DR-376-WI	Major disaster	Severe Storms & Flooding	Inland Flooding	no Public Assistance recorded	

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.

Public Assistance not placed in any Wisconsin county: 1 row, \$87,788.41; listed on the Wisconsin state page.

Source: 3

Previous occurrences by hazard, with explicit no-event rows

Sources: 2, 6, 7

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
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	12	3	0	3	0	0	1996 to 2026-06-30	
Drought	10	4	0	4	1	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	0	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	83	6	2	8	0	0	1955 to 2026-06-30	
Heat Wave	5	2	0	2	0	0	1996 to 2026-06-30	

Hazard	Storm Events records, all years on file <i>(years in the Period column)</i>	Since plan approval <i>records</i>	In the 12 months before plan approval <i>records</i>	Last 5 years <i>records</i>	Declared incidents, all years <i>separate disasters</i>	Declared since approval <i>separate disasters</i>	Period	Statement
Hurricane	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Ice Storm	2	1	0	1	0	0	1996 to 2026-06-30	
Inland Flooding	7	1	0	1	1	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	0	0	0	0	1996 to 2026-06-30	
Strong Wind	177	17	2	19	0	0	1955 to 2026-06-30	Includes 19 High Wind and 19 Strong Wind records.
Tornado	10	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
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	108	16	3	19	1	0	1996 to 2026-06-30	

Notable Storm Events records

Sources: 1, 6, 7

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Deaths, injuries <i>direct only</i>	Location	Flags	Why listed
2023-01-31	Cold/Wind Chill		\$0 property; \$0 crops (zone total, 2023 dollars)	1, 0	NWS zone WIZ022 (DOOR), zone-level	new since last plan; within last 5 years	deaths or injuries recorded
2018-04-13	Winter Storm		\$75,000 property; \$0 crops (zone total, 2018 dollars)	0, 0	NWS zone WIZ022 (DOOR), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2014-09-05	Flash Flood		\$75,000 property; \$0 crops (2014 dollars)	0, 0	EPHRAIM		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2010-07-14	Lightning		\$433,700 property; \$0 crops (2010 dollars)	0, 0	FISH CREEK		B1-c worst recorded: Lightning
2003-11-12	High Wind	68 kt (78 mph) measured gust	damage not reported	0, 0	NWS zone WIZ022 (DOOR), zone-level		B1-c worst recorded: High Wind and Strong Wind
2001-08-09	Hail	3 in	damage not reported	0, 0	STURGEON BAY		B1-c worst recorded: Hail
1999-07-23	Heat		damage not reported	0, 0	NWS zone WIZ022 (DOOR), zone-level		B1-c worst recorded: Excessive Heat, Heat
1998-11-10	High Wind	52 kt (60 mph), measurement type not recorded	\$50,000 property; crops not reported (zone total, 1998 dollars)	1, 1	NWS zone WIZ022 (DOOR), zone-level		deaths or injuries recorded
1998-08-23	Tornado	F3, 5.1 mi within this county, 1,300 yd wide	\$4,740,000 property; \$1,770,000 crops (1998 dollars)	0, 2	EGG HARBOR		B1-c worst recorded: Tornado
1998-06-25	Thunderstorm Wind	65 kt (75 mph), measurement type not recorded	\$150,000 property; crops not reported (1998 dollars)	0, 3	STURGEON BAY		deaths or injuries recorded
1996-01-30	Cold/Wind Chill		damage not reported	0, 0	NWS zone WIZ022 (DOOR), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
1983-07-21	Thunderstorm Wind	105 kt (121 mph), measurement type not recorded	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Thunderstorm Wind

The full list is in the Excel file, sheet "B1-d Storm Events history" (421 rows).

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

1 Fire Management declaration (1980-04-24 to 1980-04-24) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

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

Tribal and special-area declarations in this state are listed on the state page.

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

Probability: FEMA annualized frequency and descriptor per hazard

Sources: 5, 6

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Coastal Flooding	0.0135	events per year at a location (modeled)	about 0.014 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 descriptor: no Storm Events record 1996 to 2025
Cold Wave	5.11	event-days per year	about 5.11 days per year	Likely	Storm Events event-days in 8 of 30 years, 1996 to 2025 (26.7%)	97	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0	event-days per year	none modeled	Likely	Storm Events event-days in 5 of 30 years, 1996 to 2025 (16.7%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	NRI models no drought event-days here (2000 to 2025, 25.25 years; D3 and D4 only); Storm Events has a record in 5 of 30 years. The descriptor comes from Storm Events, which counts D2 drought that NRI leaves out.
Earthquake	0.000331	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 0.0331%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	1.11	events per year	about 1.11 per year	Highly likely	FEMA annualized frequency (modeled)	91.1 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	0.158	event-days per year	about 0.158 days per year	Likely	Storm Events event-days in 4 of 30 years, 1996 to 2025 (13.3%)	3	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane	0	events per year	none modeled	Unlikely	FEMA annualized frequency (modeled)	0	1851 to 2024 (Atlantic)	see B1-f	NRI counts hurricane and tropical storm tracks passing within storm-force wind range; federal declarations are in B1-d.
Ice Storm	0.17	event-days per year	about 0.17 days per year	Possible	Storm Events event-days in 2 of 30 years, 1996 to 2025 (6.67%)	5	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.214	event-days per year	about 0.214 days per year	Likely	Storm Events event-days in 5 of 30 years, 1996 to 2025 (16.7%)	6	1996 to 2023 (28 years)	see B1-f	

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area- weighted, so can be fractional)	NRI period	Location	Note
Landslide	0.0617	events per year (modeled)	about 1 in 16 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	26.5	days per year with a strike	about 26.5 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	1.2	events per year	about 1.2 per year	Highly likely	FEMA annualized frequency (modeled)	21	1986 to 2023 (38 years)	countywide	
Tornado	0.268	events per year	about 1 in 4 years	Likely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)			Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Wildfire	0.0000554	annual probability at a location	chance a given location in the county burns in a year: 0.00554%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No descriptor: no Storm Events record 1996 to 2025
Winter Weather	16	event-days per year	about 16 days per year	Highly likely	Storm Events event-days in 30 of 30 years, 1996 to 2025 (100%)	304	2005-11-12 to 2024-11-12 (19 years)	countywide	

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

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

Descriptor scale used in this packet (defined per unit)

Sources: 5, 6

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

Intensity bands: historical frequency (Storm Events)

Source: 6

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Hail	1.00-1.99 in	1996 to 2025	33	30	1.1
Hail	2.00 in+	1996 to 2025	2	30	0.0667
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	90	30	3
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	8	30	0.267
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	7	30	0.233
Tornado	EF0-1	1996 to 2025	3	30	0.1
Tornado	EF2-3	1996 to 2025	1	30	0.0333
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Coastal Flooding	9 of 9	74.5	80.6	81.5	Relatively Low 8, Very Low 1
Cold Wave	9 of 9	87.3	96.1	98.9	Very High 6, Relatively High 3
Drought	0 of 9				No Rating 9
Earthquake	9 of 9	5.0	6.5	14.0	Very Low 9
Hail	9 of 9	79.3	86.8	90.2	Relatively High 3, Relatively Moderate 6
Heat Wave	9 of 9	2.2	2.9	4.1	Very Low 9
Hurricane	0 of 9				No Rating 9
Ice Storm	9 of 9	17.8	56.5	69.4	Relatively Moderate 1, Relatively Low 7, Very Low 1
Inland Flooding	9 of 9	18.2	69.5	87.6	Relatively High 3, Relatively Moderate 3, Relatively Low 3
Landslide	9 of 9	38.4	72.1	86.1	Relatively Low 3, Very Low 6
Lightning	9 of 9	48.6	72.5	89.0	Relatively High 2, Relatively Moderate 6, Relatively Low 1
Strong Wind	9 of 9	66.1	81.2	88.6	Relatively High 4, Relatively Moderate 5
Tornado	9 of 9	50.1	61.1	75.0	Relatively High 2, Relatively Moderate 6, Relatively Low 1
Tsunami	0 of 9				Insufficient Data 9
Wildfire	9 of 9	61.5	69.6	81.7	Relatively Low 5, Very Low 4
Winter Weather	9 of 9	34.3	51.1	61.7	Relatively Moderate 6, Relatively Low 3

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

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

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

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss	Public Assistance to this jurisdiction	Event records naming this place
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	<i>all years; since its plan</i>
Door County	County	Approved, expires 2027-11-13	FMA RL 0, SRL 0; any 1	\$15,139.09	0 total; 0 since its plan
Egg Harbor village	Village	Approved, expires 2027-11-13	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	27 total; 4 since its plan
Ephraim village	Village	Approved, expires 2027-11-13	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	7 total; 3 since its plan
Forestville village	Village	Plan 108476 approved 2022-11-14, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	8 total; no approved plan
Sister Bay village	Village	Approved, expires 2027-11-13	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	9 total; 2 since its plan
Sturgeon Bay city	City	Approved, expires 2027-11-13	FMA RL 0, SRL 0; any 2	\$22,721.25	49 total; 4 since its plan

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

County Public Assistance in B1-d also includes applicants filed under the county that are not jurisdictions in this plan (for example state agencies, special districts and nonprofits), so the jurisdiction rows add up to less.

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

Local data needed

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

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

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

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

Hazard	Building exposure	Agriculture exposure	Population exposed	EAL buildings	EAL agriculture	Cost of expected deaths and injuries	EAL as % of exposure	Storm Events damage since 2022-11-14	Zone-level damage since plan	Public Assistance since plan	Note
	<i>modeled dollars</i>	<i>modeled dollars</i>	<i>people</i>	<i>modeled dollars per year</i>	<i>modeled dollars per year</i>	<i>FEMA's dollar value per year, not property damage</i>	<i>buildings; agriculture where noted</i>	<i>county-coded records, property plus crops, nominal dollars</i>	<i>property plus crops, reported for the zone</i>	<i>nominal dollars; see note</i>	
Coastal Flooding	\$2,779,621,119	n/a	449	\$15,682	n/a	\$523	0.000564%				
Cold Wave	\$16,397,807,584	\$101,386,366	30,054	\$9	\$155,721	\$4,981,984	under 0.0001%		\$0		
Drought	n/a	\$0	n/a	n/a	\$0	n/a			\$0		agriculture exposure is 0 in NRI

Hazard	Building exposure <i>modeled dollars</i>	Agriculture exposure <i>modeled dollars</i>	Population exposed <i>people</i>	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2022-11-14 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Earthquake	\$27,428,614,625	n/a	30,066	\$10,781	n/a	\$2,125	under 0.0001%				
Hail	\$16,397,807,584	\$101,386,366	30,054	\$405,023	\$167,262	\$36,911	0.00247%	\$0			
Heat Wave	\$16,397,807,584	\$101,386,366	30,054	\$200	under \$1	\$15,822	under 0.0001%		\$0		
Hurricane	\$16,397,807,584	\$101,386,366	30,054	\$0	\$0	\$0	0%				
Ice Storm	\$16,168,964,487	n/a	29,858	\$51,124	n/a	\$1,336	0.000316%		\$0		
Inland Flooding	\$16,343,675,610	\$482,673	361	\$6,928,922	\$1,487	\$1,318	n/a (see note)	\$20,000			NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b.
Landslide	\$227,524,595	n/a	285	\$114	n/a	\$520	under 0.0001%				
Lightning	\$16,397,807,584	n/a	30,054	\$31,490	n/a	\$185,892	0.000192%				
Strong Wind	\$16,397,807,584	\$101,386,366	30,054	\$100,919	\$89,756	\$295,388	0.000615%	\$431,000			
Tornado	\$16,397,807,584	\$101,386,366	30,054	\$790,808	\$692	\$333,479	0.00482%	\$0			
Tsunami	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Wildfire	\$8,615,201,160	\$51,007,170	14,805	\$24,335	\$25	\$1,113	0.000282%				
Winter Weather	\$16,397,807,584	\$101,386,366	30,054	\$6,679	\$534	\$15,960	under 0.0001%		\$0		

Totals since 2022-11-14 (Storm Events through 2026-06-30): 26 county-coded records, 26 with a damage value recorded (including \$0), \$451,000; 26 zone-level records, 26 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance: no counted declaration since the plan.

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

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

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

County context

Source: 5

Measure	Value
Population	30,054
Building value (total, not at risk)	\$16,397,807,584
Agriculture value (total, not at risk)	\$101,386,366
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$8,781,565
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)	\$5,872,373
Social vulnerability rating	Relatively Moderate
Community resilience rating	Very High
NRI version	December 2025

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

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

Supports FEMA checklist item B2-c: repetitive loss properties

Repetitive loss in this county, both definitions

Sources: 1, 4

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	0
Repetitive loss, NFIP insurance definition	3	Severe repetitive loss, NFIP insurance definition	0

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

Repeat-flood properties: county and state-level rows

Sources: 1, 4

Scope	RL, FMA properties	SRL, FMA properties	RL, NFIP properties	SRL, NFIP properties	Any category properties	Mitigated properties	Currently insured properties
County total	0	0	3	0	3	0	1
of which: Door County (unincorporated area)	0	0	1	0	1	0	1
of which: Sturgeon Bay city	0	0	2	0	2	0	0
Statewide, no county in FEMA's file	0	0	2	0	2	0	0

The statewide row counts properties FEMA's file gives with no county in this state; they are listed for reference and are not in this county's counts.

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

Sources: 1, 4

Jurisdiction	NFIP community ID	RL, FMA <i>properties</i>	SRL, FMA <i>properties</i>	RL, NFIP <i>properties</i>	SRL, NFIP <i>properties</i>	Any category <i>properties</i>	Mitigated <i>properties</i>	Currently insured <i>properties</i>
Door County	550109	0	0	1	0	1	0	1
Egg Harbor village	550029	0	0	0	0	0	0	0
Ephraim village	550611	0	0	0	0	0	0	0
Forestville village	550110	0	0	0	0	0	0	0
Sister Bay village	550030	0	0	0	0	0	0	0
Sturgeon Bay city	550111	0	0	2	0	2	0	0

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

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

County repeat-flood properties by occupancy group

Sources: 1, 4

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

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

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

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

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 3 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)

3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_place_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_unsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip](https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_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/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)

What this packet is and what the plan adds

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

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

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

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