

Denali Borough, AK

Risk-assessment baseline packet

County FIPS: 02068 Release: 2026-10 Data as of: 2026-09-30 Storm Events data through: 2026-06-30

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

Summary

Plan status as of 2026-09-30: Expired on 2025-08-30. Plan: Denali Borough and City of Anderson MJHMP (FEMA plan 106090), approved 2020-08-31.

Update: FEMA tracker shows a plan in progress.

Since the plan was approved on 2020-08-31: 3 new hazard declarations (3 incidents) and 45 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): Avalanche (\$6,156,104 a year), Cold Wave (\$2,027,360) and Earthquake (\$1,753,944).

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; 02068 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:	Expired on 2025-08-30	Plan:	Denali Borough and City of Anderson MJHMP (FEMA plan 106090)
Approved:	2020-08-31	Days since expiry:	396
Update underway:	FEMA tracker shows a plan in progress		

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

What changed since your last plan (approved 2020-08-31)

New federal declarations:

3 new hazard declarations (3 incidents): DR-4648-AK (Severe Winter Storm and Straight-Line Winds), FM-5442-AK (Clear Fire), FM-5595-AK (Bear Creek Fire)

Repetitive loss now:

FMA RL 0, SRL 0 (44 CFR 77.2); any definition: 0

Storm Events records since approval:

45 records (data through 2026-06-30)

Repeat-flood change:

this release sets the baseline count.

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

Plan status for every jurisdiction listed in this county

Source: 1

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry negative = days since expiry	Update underway
Denali Borough	Organized Borough	Expired on 2025-08-30	Denali Borough and City of Anderson MJHMP (FEMA plan 106090)	2020-08-31	2025-08-30	-396	FEMA tracker shows a plan in progress
Anderson city	City	Expired on 2025-08-30	Denali Borough and City of Anderson MJHMP (FEMA plan 106090)	2020-08-31	2025-08-30	-396	FEMA tracker shows a plan in progress
Cantwell CDP	Other	No approved plan on record	none	none	none		FEMA tracker shows a plan in progress
Denali Park CDP	Other	No approved plan on record	none	none	none		FEMA tracker shows a plan in progress
Ferry CDP	Other	No approved plan on record	none	none	none		FEMA tracker shows a plan in progress
Healy CDP	Other	No approved plan on record	none	none	none		FEMA tracker shows a plan in progress

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	Avalanche	Very High	Relatively High	\$401	n/a	\$6,155,703	\$6,156,104	8	
2	Cold Wave	Relatively Low	Relatively Moderate	\$2,597	\$0	\$2,024,763	\$2,027,360	5	
3	Earthquake	Relatively Low	Relatively Low	\$1,412,282	n/a	\$341,662	\$1,753,944		Storm Events does not record earthquakes.
4	Wildfire	Relatively Low	Relatively Low	\$789,032	\$0	\$17,436	\$806,468	4	
5	Inland Flooding	Very Low	Very Low	\$360,518	\$0	\$0	\$360,518	42	
6	Landslide	Relatively Low	Relatively Low	\$2,573	n/a	\$32,177	\$34,750	0	Declared 3 times; no Storm Events record of this type.
7	Winter Weather	Relatively Low	Relatively Low	\$14,900	\$0	\$14,657	\$29,557	144	
8	Lightning	Very Low	Very Low	\$639	n/a	\$5,655	\$6,294	1	
9	Ice Storm	Very Low	Very Low	\$974	n/a	\$182	\$1,156	16	
10	Volcanic Activity	Very Low	Very Low	\$67	n/a	\$65	\$133	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
11	Hail	Very Low	Very Low	\$85	\$0	\$1	\$86	5	
12	Strong Wind	Very Low	Very Low	under \$1	\$0	\$1	\$1	162	Includes 157 High Wind and 5 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).
13	Tornado	Very Low	Very Low	under \$1	\$0	under \$1	\$1	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings <i>modeled dollars per year</i>	EAL agriculture <i>modeled dollars per year</i>	Cost of expected deaths and injuries <i>FEMA's dollar value per year, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records, 1996 to 2026-06-30 <i>count</i>	Storm Events coverage note
14	Drought	No Rating	No Expected Annual Losses	n/a	\$0	n/a	\$0	0	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Heat Wave	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 landslide, volcanic activity and heat wave 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: coastal flooding, hurricane and tsunami. 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.

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.

NRI rating of the county's single census tract

Source: 5

Hazard	Census tract <i>NRI risk rating, score 0 to 100</i>
Avalanche	tract 1 (Relatively High, 96.2)
Earthquake	tract 1 (Relatively High, 95.5)
Landslide	tract 1 (Relatively Moderate, 99.2)
Tornado	tract 1 (Very Low, 0.2)
Volcanic Activity	tract 1 (Relatively Low, 94.7)
Wildfire	tract 1 (Relatively High, 98.7)

A tract number is the Census tract number (for example 1 is Census Tract 1). 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
Avalanche	none (count and damage only)	8 records, 2000 to 2025 (8 zone-level)		Avalanche, 2003-02-06, \$10,000 property; crops not reported (2003 dollars); NWS zone AKZ145		Countywide (zone-level records).	
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	5 records, 2006 to 2012 (5 zone-level)	2 days to 31 days (median 16 days); 3 with a recorded value	January 2012 (1 monthly summary record), 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)	0					Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	hail size (inches)	5 records, 2004 to 2005 (5 zone-level)		No hail record can stand as this county's largest: the 5 records with a recorded size reached this county only through an NWS zone that covers more than one county, so the hail may have occurred outside this county (zone-level); they are counted as occurrences.		Countywide (zone-level records).	
Excessive Heat, Heat	heat index (in event narratives)	0					
Ice Storm	Sperry-Piltz ice scale (local data)	16 records, 2003 to 2021 (16 zone-level)		No damage reported in 16 records.		Countywide (zone-level records).	
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	42 records, 2001 to 2022 (42 zone-level)		Flood, 2006-08-18, \$20,000,000 property; crops not reported (2006 dollars); NWS zone AKZ145		Countywide (zone-level records).	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)	1 record, 2015 (1 zone-level)		Lightning, 2015-06-24, \$5,000 property; \$0 crops (2015 dollars); NWS zone AKZ225		Countywide (zone-level records).	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	162 records, 2001 to 2026 (162 zone-level)	39 kt (45 mph) to 99 kt (114 mph) (median 61 kt (70 mph)); 162 with a recorded value	99 kt (114 mph) estimated gust, High Wind, 2012-09-16; NWS zone AKZ223	High Wind, 2013-10-24, \$200,000 property; \$0 crops (zone total, 2013 dollars)	Countywide (zone-level records).	
Thunderstorm Wind	wind speed (kt and mph)	0					
Tornado	Enhanced Fujita (Fujita before Feb 2007)	0					Before 1996 a tornado is listed once, under the county where it began, with its whole path's rating and length; from 1996 on, each county lists its own segment. Length is not used to rank tornadoes (see Methods).
Volcanic Ash, Volcanic Ashfall	Volcanic Explosivity Index (local data)	0					
Wildfire	acres burned (local data)	4 records, 2006 to 2015 (4 zone-level)		Wildfire, 2010-05-28, \$1,500,000 property; \$0 crops (2010 dollars); NWS zone AKZ227		Countywide (zone-level records).	
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	144 records, 2001 to 2026 (144 zone-level)		Winter Weather, 2015-06-01, \$400 property; \$0 crops (2015 dollars); NWS zone AKZ223		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 avalanche, debris flow, lightning and volcanic ash, volcanic ashfall.

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

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

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

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 10 declarations covering 8 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

Federal disaster declarations for this county

Sources: 1, 2, 3

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2025-06-23	2025-06-22	FM-5595-AK	Fire management	Bear Creek Fire	Wildfire	no Public Assistance recorded	new since last plan; within last 5 years	
2022-06-26	2022-06-21	FM-5442-AK	Fire management	Clear Fire	Wildfire	no Public Assistance recorded	new since last plan; within last 5 years	
2022-03-24	2021-12-25	DR-4648-AK	Major disaster	Severe Winter Storm and Straight-Line Winds	Strong Wind; Winter Weather	no Public Assistance recorded	new since last plan; within last 5 years	
2020-04-09	2020-01-20	DR-4533-AK	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$98,274.41	in the 12 months before plan approval	
2020-03-13	2020-01-20	EM-3446-AK	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded	in the 12 months before plan approval	same incident as DR-45
2012-11-27	2012-09-15	DR-4094-AK	Major disaster	Severe Storm, Straight-Line Winds, Flooding, and Landslides	Inland Flooding; Landslide; Strong Wind	no Public Assistance recorded		
2008-09-26	2008-07-27	DR-1796-AK	Major disaster	Severe Storms, Flooding, Landslides, and Mudslides	Inland Flooding; Landslide	\$1,929.08		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2006-10-16	2006-08-15	DR-1663-AK	Major disaster	Severe Storms, Flooding, Landslides, and Mudslides	Inland Flooding; Landslide	no Public Assistance recorded		
2002-11-08	2002-11-03	DR-1440-AK	Major disaster	Earthquake	Earthquake	none placed in this county by FEMA's record; \$271,766.56 for this declaration is not placed in any county (see the state page)		
2000-02-17	1999-12-21	DR-1316-AK	Major disaster	Severe Winter Storms and Avalanches	Winter Weather	none placed in this county by FEMA's record; \$49,077.34 for this declaration is not placed in any county (see the state page)		

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.

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1964-03-28	1964-03-28	DR-168-AK	Major disaster	Earthquake	Earthquake
1955-12-22	1955-12-22	DR-46-AK	Major disaster	Severe Hardship	Other, not an NRI hazard; not counted
1954-11-10	1954-11-10	DR-31-AK	Major disaster	Severe Hardship	Other, not an NRI hazard; not counted
1953-10-30	1953-10-30	DR-13-AK	Major disaster	Severe Hardship	Other, not an NRI hazard; not counted

FEMA recorded these with designated area Statewide and no county, so they are listed on every county page in the state and not counted with county rows. Local data needed: whether each one affected this county.

7 Fire Management declarations (1970-06-26 to 1996-06-05) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

Public Assistance not placed in any Alaska county: 40 rows, \$21,127,378.43; listed on the Alaska 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
Avalanche	8	1	0	1	0	0	1996 to 2026-06-30	
Cold Wave	5	0	0	0	0	0	1996 to 2026-06-30	
Drought	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events

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
Earthquake	0	0	0	0	1	0		Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	5	0	0	0	0	0	1955 to 2026-06-30	
Heat Wave	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	16	3	0	3	0	0	1996 to 2026-06-30	
Inland Flooding	42	1	0	1	3	0	1996 to 2026-06-30	
Landslide	0	0	0	0	3	0	1996 to 2026-06-30	No Storm Events records of this type; 3 federal declared incidents (see declarations table)
Lightning	1	0	0	0	0	0	1996 to 2026-06-30	
Strong Wind	162	19	5	17	2	1	1955 to 2026-06-30	Includes 157 High Wind and 5 Strong Wind records.
Tornado	0	0	0	0	0	0	1950 to 2026-06-30	No recorded events, 1950 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	4	0	0	0	2	2	1996 to 2026-06-30	
Winter Weather	144	21	3	17	2	1	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	Why listed
2015-06-24	Lightning		\$5,000 property; \$0 crops (zone total, 2015 dollars)	0, 0	NWS zone AKZ225 (DENALI), zone-level	B1-c worst recorded: Lightning
2015-06-01	Winter Weather		\$400 property; \$0 crops (zone total, 2015 dollars)	0, 0	NWS zone AKZ223 (DELTANA AND TANANA), zone-level	B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2015-03-14	Avalanche		\$0 property; \$0 crops (zone total, 2015 dollars)	1, 0	NWS zone AKZ145 (SUSITNA VALLEY), zone-level	deaths or injuries recorded
2014-12-06	Avalanche		\$0 property; \$0 crops (zone total, 2014 dollars)	1, 0	NWS zone AKZ226 (NE. SLOPES OF THE ERN AK RNG), zone-level	deaths or injuries recorded
2013-10-24	High Wind	39 kt (45 mph) measured sustained	\$200,000 property; \$0 crops (zone total, 2013 dollars)	0, 0	NWS zone AKZ145 (SUSITNA VALLEY), zone-level	B1-c most damaging: High Wind and Strong Wind
2012-09-19	Flood		\$10,370,000 property; \$0 crops (zone total, 2012 dollars)	1, 0	NWS zone AKZ145 (SUSITNA VALLEY), zone-level	deaths or injuries recorded
2012-09-16	High Wind	99 kt (114 mph) estimated gust	\$15,000 property; \$0 crops (zone total, 2012 dollars)	0, 0	NWS zone AKZ223 (DELTANA AND TANANA), zone-level	B1-c worst recorded: High Wind and Strong Wind
2012-01-01	Cold/Wind Chill		\$0 property; \$0 crops (zone total, 2012 dollars)	0, 0	NWS zone AKZ227 (UPPER KUSKOKWIM VALLEY), zone-level	B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2010-05-28	Wildfire		\$1,500,000 property; \$0 crops (zone total, 2010 dollars)	0, 0	NWS zone AKZ227 (UPPER KUSKOKWIM VALLEY), zone-level	B1-c worst recorded: Wildfire
2006-08-18	Flood		\$20,000,000 property; crops not reported (zone total, 2006 dollars)	0, 0	NWS zone AKZ145 (SUSITNA VALLEY), zone-level	B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2004-04-10	Avalanche		damage not reported	1, 0	NWS zone AKZ226 (NE. SLOPES OF THE ERN AK RNG), zone-level	deaths or injuries recorded
2003-02-06	Avalanche		\$10,000 property; crops not reported (zone total, 2003 dollars)	0, 0	NWS zone AKZ145 (SUSITNA VALLEY), zone-level	B1-c worst recorded: Avalanche

The full list is in the Excel file, sheet "B1-d Storm Events history" (387 rows).

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

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

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
Avalanche	0.5	events per year	about 0.5 per year	Likely	FEMA annualized frequency (modeled)	15	1994 to 2023 (30 years)	see B1-f	
Cold Wave	6.33	event-days per year	about 6.33 days per year	Likely	Storm Events event-days in 4 of 30 years, 1996 to 2025 (13.3%)	120	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	0	event-days per year	none modeled		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	0	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.113	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 11.3%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	0.00189	events per year	about 1 in 530 years	Unlikely	FEMA annualized frequency (modeled)	0.1 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave		event-days per year			Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)		2005-11-12 to 2024-11-12 (19 years)	countywide	No Storm Events heat wave record, 1996 to 2025
Ice Storm	0.0149	event-days per year	about 0.0149 days per year	Likely	Storm Events event-days in 7 of 30 years, 1996 to 2025 (23.3%)	0	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.005	event-days per year	about 0.005 days per year	Likely	Storm Events event-days in 15 of 30 years, 1996 to 2025 (50%)	0	1996 to 2023 (28 years)	see B1-f	
Landslide	31	events per year (modeled)	about 31 per year	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	27.2	days per year with a strike	about 27.2 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.000187	events per year	about 1 in 5,337 years	Unlikely	FEMA annualized frequency (modeled)	1	1986 to 2023 (38 years)	countywide	
Tornado	0.000118	events per year	about 1 in 8,454 years	Unlikely	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Volcanic Activity	0.0106	annual probability	about 1 in 94 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	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
Wildfire	0.00776	annual probability at a location	chance a given location in the county burns in a year: 0.776%	Likely	Storm Events records in 3 of 30 years, 1996 to 2025 (10%)	not shown	modeled	see B1-f	
Winter Weather	16.7	event-days per year	about 16.7 days per year	Likely	Storm Events event- days in 23 of 30 years, 1996 to 2025 (76.7%)	317	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	0	30	0
Hail	2.00 in+	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	0	30	0
Tornado	EF0-1	1996 to 2025	0	30	0
Tornado	EF2-3	1996 to 2025	0	30	0
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

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

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

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

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

NRI risk score of the county's single census tract

Source: 5

Hazard	Tract score <i>NRI score, 0 to 100</i>	Rating
Avalanche	96.2	Relatively High
Cold Wave	99.8	Very High
Drought		No Rating
Earthquake	95.5	Relatively High
Hail	2.0	Very Low
Heat Wave		Insufficient Data
Ice Storm	16.5	Very Low
Inland Flooding	29.0	Relatively Low
Landslide	99.2	Relatively Moderate
Lightning	35.1	Relatively Low
Strong Wind	0.2	Very Low
Tornado	0.2	Very Low

Hazard	Tract score	Rating
	NRI score, 0 to 100	
Volcanic Activity	94.7	Relatively Low
Wildfire	98.7	Relatively High
Winter Weather	96.3	Very High

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.

Each jurisdiction (starting figures from federal data)

Sources: 1, 3, 4, 6

Jurisdiction	Type	Plan status	Repetitive loss <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance to this jurisdiction <i>FEMA records matched by applicant name; federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since its plan</i>	Notes
Denali Borough	Organized Borough	Expired on 2025-08-30		\$100,203.49	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row. Includes \$98,274.41 for declarations not counted as hazard incidents (DR-4533-AK).
Anderson city	City	Expired on 2025-08-30		no Public Assistance recorded	0 total; 0 since its plan	No NFIP community ID on this jurisdiction's plan row.
Cantwell CDP	Other	No approved plan on record		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Denali Park CDP	Other	No approved plan on record		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Ferry CDP	Other	No approved plan on record		no Public Assistance recorded	0 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.
Healy CDP	Other	No approved plan on record		no Public Assistance recorded	4 total; no approved plan	No NFIP community ID on this jurisdiction's plan row.

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 <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 2020-08-31 <i>county-coded records, property plus crops, nominal dollars</i>	Zone-level damage since plan <i>property plus crops, reported for the zone</i>	Public Assistance since plan <i>nominal dollars; see note</i>	Note
Avalanche	\$437,924	n/a	10	\$401	n/a	\$6,155,703	0.0916%		\$0		
Cold Wave	\$888,514,277	\$0	1,615	\$2,597	\$0	\$2,024,763	0.000292%				
Drought	n/a	\$0	n/a	n/a	\$0	n/a					agriculture exposure is 0 in NRI
Earthquake	\$1,363,407,583	n/a	1,619	\$1,412,282	n/a	\$341,662	0.104%				
Hail	\$888,514,277	\$0	1,615	\$85	\$0	\$1	under 0.0001%				
Heat Wave	n/a	n/a	n/a	n/a	n/a	n/a					NRI publishes no building exposure for this county
Ice Storm	\$888,514,277	n/a	1,615	\$974	n/a	\$182	0.00011%		\$0		
Inland Flooding	\$886,838,310	\$0	0	\$360,518	\$0	\$0	n/a (see note)		\$301,000		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	\$52,784,964	n/a	52	\$2,573	n/a	\$32,177	0.00487%				

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 2020-08-31 <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
Lightning	\$888,514,277	n/a	1,615	\$639	n/a	\$5,655	under 0.0001%				
Strong Wind	\$888,514,277	\$0	1,615	under \$1	\$0	\$1	under 0.0001%		\$0	no Public Assistance recorded (1 declaration)	
Tornado	\$888,514,277	\$0	1,615	under \$1	\$0	under \$1	under 0.0001%				
Volcanic Activity	\$888,514,277	n/a	1,615	\$67	n/a	\$65	under 0.0001%				
Wildfire	\$448,552,552	\$0	973	\$789,032	\$0	\$17,436	0.176%			no Public Assistance recorded (2 declarations)	
Winter Weather	\$888,514,277	\$0	1,615	\$14,900	\$0	\$14,657	0.00168%		\$0	no Public Assistance recorded (1 declaration)	

Totals since 2020-08-31 (Storm Events through 2026-06-30): 0 county-coded records, 0 with a damage value recorded (including \$0), \$0; 45 zone-level records, 38 with a damage value recorded (including \$0), \$301,000 reported for the zone; Public Assistance: none recorded on the 3 counted declarations.

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

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

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

County context

Source: 5

Measure	Value
Population	1,615
Building value (total, not at risk)	\$888,514,277
Agriculture value (total, not at risk)	\$0
NRI risk rating (all hazards)	Very Low
Expected annual loss, buildings and agriculture, all hazards	\$2,584,067
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)	\$8,592,303
Social vulnerability rating	Very Low
Community resilience rating	Relatively Low
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	0	Severe repetitive loss, NFIP insurance definition	0

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

Repeat-flood properties: county total and NFIP communities

Sources: 1, 4

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

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

Sources: 1, 4

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

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

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

Exact counts; no count suppression.

Sources

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

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

8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_cousubs_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_place_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_unsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_elsd_national.zip, https://www2.census.gov/geo/docs/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