

Klamath County, OR

Risk-assessment baseline packet

County FIPS: 41035 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: No approved plan on record.
Update: FEMA tracker shows a plan in progress.
Highest expected annual loss (FEMA National Risk Index, modeled total; see B1-a): Inland Flooding (\$15,461,778 a year), Earthquake (\$10,752,005) and Wildfire (\$2,562,639).
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; 41035 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:	No approved plan on record	Plan:	none
Approved:	none	Expires:	none
Update underway:	FEMA tracker shows a plan in progress		

FEMA's plan status data lists no approved plan for this jurisdiction.

What changed since your last plan

Not available. No approved plan on record, so there is no approval date to count from.

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
Klamath County	County	No approved plan on record	none	none	none		FEMA tracker shows a plan in progress
Klamath Falls city	City	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 modeled dollars per year	EAL agriculture modeled dollars per year	Cost of expected deaths and injuries FEMA's dollar value per year, not property damage	EAL total (see note) modeled dollars per year	Storm Events records, 1996 to 2026-06-30 count	Why this hazard can be left out NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
1	Inland Flooding	Relatively Moderate	Relatively Low	\$15,365,039	\$51,191	\$45,548	\$15,461,778	14		
2	Earthquake	Relatively Moderate	Relatively Moderate	\$6,974,180	n/a	\$3,777,824	\$10,752,005			Storm Events does not record earthquakes.
3	Wildfire	Relatively Moderate	Relatively Moderate	\$2,391,819	\$1,845	\$168,975	\$2,562,639	107		
4	Cold Wave	Relatively Moderate	Relatively Moderate	\$779	\$15,547	\$1,720,607	\$1,736,933	175		Includes 117 Frost/Freeze records (outside NRI's Cold Wave definition; counted in this table and in B1-d, not in the B1-e descriptor).
5	Heat Wave	Relatively Low	Relatively Low	\$213	\$24,061	\$747,122	\$771,396	8		
6	Avalanche	Relatively Moderate	Relatively Low	\$1	n/a	\$456,667	\$456,668	2		
7	Winter Weather	Relatively High	Relatively High	\$771	under \$1	\$424,025	\$424,796	144		
8	Lightning	Relatively Low	Relatively Low	\$10,323	n/a	\$173,572	\$183,895	4		
9	Hail	Very Low	Very Low	\$51,812	\$21,506	\$7,212	\$80,530	29		
10	Strong Wind	Very Low	Very Low	\$9,393	\$360	\$29,309	\$39,061	132		Includes 118 High Wind and 1 Strong Wind records (NOAA non-thunderstorm wind types, outside NRI's Strong Wind definition).

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>	Why this hazard can be left out <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
11	Volcanic Activity	Relatively Low	Relatively Low	\$11,909	n/a	\$14,124	\$26,033	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
12	Ice Storm	Very Low	Very Low	\$823	n/a	\$14,164	\$14,988	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
13	Tornado	Very Low	Very Low	\$7,471	\$35	\$4,603	\$12,110	3		
14	Drought	Very Low	Very Low	n/a	\$9,815	n/a	\$9,815	0		Declared 1 time; no Storm Events record of this type.
15	Landslide	Very Low	Very Low	\$1,821	n/a	\$406	\$2,227	0		Declared 1 time; no Storm Events record of this type.
	Hurricane	Not Applicable	Not Applicable					0	NRI rates hurricane Not Applicable for this county, and no counted federal declaration for this county names it (EM-3228-OR names it but is not counted as a local occurrence; see B1-d).	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 volcanic activity and landslide records (Storm Events records these hazards only in part).

Not applicable to this county per NRI, with no federal declaration and no Storm Events record since 1996: coastal flooding 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.

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>
Avalanche	tract 9702.01 (Relatively Low, 79.3); tract 9701 (Relatively Low, 78.3); tract 9705 (Relatively Low, 78.1)
Earthquake	tract 9716 (Relatively High, 94.2); tract 9715 (Relatively High, 93.8); tract 9718 (Relatively High, 93.2)
Hurricane	no tract has a National Risk Index rating for this hazard
Landslide	tract 9703 (Relatively Low, 92.5); tract 9702.01 (Relatively Low, 90.5); tract 9701 (Relatively Low, 89.1)
Tornado	tract 9701 (Very Low, 3.3); tract 9711 (Very Low, 3.0); tract 9720 (Very Low, 3.0)
Volcanic Activity	tract 9701 (Relatively Moderate, 98.6); tract 9702.01 (Relatively Low, 97.8); tract 9703 (Relatively Low, 97.5)
Wildfire	tract 9703 (Relatively High, 98.8); tract 9702.01 (Relatively High, 98.4); tract 9705 (Relatively High, 97.9)

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 9702.01 is Census Tract 9702.01). 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)	2 records, 2008 to 2009 (2 zone-level)		No damage reported in 2 records.		Countywide (zone-level records).	
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	58 records, 1999 to 2009 (58 zone-level)	1 day to 7 days (median 2 days); 18 with a recorded value	7 consecutive days, 2009-12-05 to 2009-12-11, zone-level		Countywide (zone-level records).	Cold/Wind Chill records from May to September (a frost night, not a cold wave) are counted but not used for the longest run.
Frost/Freeze (outside NRI's Cold Wave definition)	crop damage	117 records, 2003 to 2024 (117 zone-level)		No crop damage reported in 117 records.		Countywide (zone-level records).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
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)	33 records, 1961 to 2020	0.75 in to 2 in (median 1 in); 33 with a recorded value	2 in hail, 1987-06-30	Hail, 2005-08-21, \$1,000 property; crops not reported (2005 dollars)	Event records naming jurisdictions in the plan: Klamath Falls city (4 records).	
Excessive Heat, Heat	heat index (in event narratives)	8 records, 2017 to 2024 (8 zone-level)	4 days to 9 days (median 5 days); 7 with a recorded value	9 consecutive days, 2024-07-05 to 2024-07-13, 1 direct death, zone-level		Countywide (zone-level records).	
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)	0					
Flash Flood, Flood, Lakeshore Flood	damage and flood days (flood depth: FIRM)	14 records, 1996 to 2025 (4 zone-level)		Flood, 1997-01-01, \$9,000,000 property; \$2,900,000 crops (1997 dollars); Storm Events area SOUTH CENTRAL OREGON (legacy zone code ORZ015)		Event records naming jurisdictions in the plan: Klamath Falls city (4 records). Zone-level records (4) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage is often \$0 or blank for floods, major ones included; FEMA Public Assistance by declaration (B1-d) shows which floods cost the most.
Debris Flow	none (count and damage only)	0					
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	4 records, 2002 to 2003		No damage or casualties reported in 4 records.		No event record names a jurisdiction in the plan.	Storm Events lists lightning with damage or casualties.
High Wind and Strong Wind (outside NRI's Strong Wind definition)	wind speed (kt and mph)	119 records, 1996 to 2024 (119 zone-level)	35 kt (40 mph) to 108 kt (124 mph) (median 70 kt (81 mph)); 114 with a recorded value	108 kt (124 mph) measured gust, High Wind, 2017-01-21; same speed and measurement basis also recorded on 2015-02-05; NWS zone ORZ028	High Wind, 1998-01-23, \$10,000 property; crops not reported (zone total, 1998 dollars)	Countywide (zone-level records).	Speeds under 20 kt (likely entry errors) are left out of the observed range.
Thunderstorm Wind	wind speed (kt and mph)	16 records, 1970 to 2025	50 kt (58 mph) to 70 kt (81 mph) (median 52 kt (60 mph)); 13 with a recorded value	70 kt (81 mph) estimated gust, Thunderstorm Wind, 2007-07-06	Thunderstorm Wind, 2008-08-16, \$10,000 property; \$0 crops (2008 dollars)	Event records naming jurisdictions in the plan: Klamath Falls city (3 records).	

Hazard	Scale	Records <i>count and years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to jurisdictions	Note
Tornado	Enhanced Fujita (Fujita before Feb 2007)	5 records, 1962 to 2019	F/EF0 to F/EF1 (median F/EF0); 5 with a recorded value	F1 tornado, 1962-05-19, 0.5 mi path length (whole path, pre-1996), 20 yd wide, \$2,500 property; crops not recorded (1962 dollars)	Tornado, 1995-05-30, \$20,000 property; crops not recorded (1995 dollars)	No event record names a jurisdiction in the plan.	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)	107 records, 1999 to 2025 (82 zone-level)		Wildfire, 2024-09-01, \$4,000,000 property; \$0 crops (2024 dollars); NWS zone ORZ030		Event records naming jurisdictions in the plan: Klamath Falls city (3 records). Zone-level records (82) apply countywide.	
Winter Storm, Heavy Snow, Blizzard, Lake- Effect Snow, Winter Weather, Sleet	none in data (snowfall: local data)	144 records, 1997 to 2026 (144 zone- level)		Winter Weather, 2011-01-02, \$50,000 property; \$0 crops (2011 dollars); NWS zone ORZ030		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.

Supports FEMA checklist item B1-d: previous occurrences

Federal declarations for this county: 18 declarations covering 13 separate hazard incidents counted in this packet (declarations for the same incident count once; non-natural and evacuation-only declarations are not counted).

No approved plan on record, so there is no approval date to count from.

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
2026-08-09	2026-08-05	FM-5666-OR	Fire management	Wrights Spring Fire	Wildfire	not yet in FEMA's PA summaries (they cover declarations through 2026-06-30)	within last 5 years	
2024-09-02	2024-09-01	FM-5532-OR	Fire management	Copperfield Fire	Wildfire	no Public Assistance recorded	within last 5 years	
2023-07-23	2023-07-22	FM-5471-OR	Fire management	Golden Fire	Wildfire	no Public Assistance recorded	within last 5 years	

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2021-07-10	2021-07-10	FM-5396-OR	Fire management	Bootleg Fire	Wildfire	no Public Assistance recorded		
2020-09-15	2020-09-07	DR-4562-OR	Major disaster	Wildfires and Straight-Line Winds	Wildfire	\$176,388.94		
2020-09-10	2020-09-08	EM-3542-OR	Emergency	Wildfires	Wildfire	no Public Assistance recorded		same incident as DR-4562
2020-09-08	2020-09-07	FM-5354-OR	Fire management	Two Four Two Fire	Wildfire	no Public Assistance recorded		same incident as DR-4562
2020-03-28	2020-01-20	DR-4499-OR	Major disaster	COVID-19 Pandemic	Non-natural, not counted	\$19,147,748.39		
2020-03-13	2020-01-20	EM-3429-OR	Emergency	COVID-19	Non-natural, not counted	no Public Assistance recorded		same incident as DR-4499
2017-08-04	2017-08-03	FM-5195-OR	Fire management	Pipeline Fire	Wildfire	no Public Assistance recorded		
2014-08-01	2014-07-31	FM-5066-OR	Fire management	Oregon Gulch Fire	Wildfire	no Public Assistance recorded		
2014-07-14	2014-07-13	FM-5060-OR	Fire management	Moccasin Hills Fire	Wildfire	no Public Assistance recorded		
2008-09-17	2008-09-16	FM-2787-OR	Fire management	Royce Butte Fire	Wildfire	no Public Assistance recorded		
2005-09-07	2005-08-29	EM-3228-OR	Emergency	Hurricane Katrina Evacuation	Hurricane: evacuation support, not a local hazard event; not counted	no Public Assistance recorded		
1997-01-23	1996-12-25	DR-1160-OR	Major disaster	Severe Winter Storms, Land and Mudslides, Flooding	Inland Flooding; Landslide; Winter Weather	PA not declared for this county		
1993-10-15	1993-09-20	DR-1004-OR	Major disaster	Earthquakes	Earthquake	no Public Assistance recorded		
1977-04-29	1977-04-29	EM-3039-OR	Emergency	Drought	Drought	no Public Assistance recorded		
1964-12-24	1964-12-24	DR-184-OR	Major disaster	Heavy Rains & 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.

Statewide declarations

Source: 2

Declared	Incident began	FEMA number	Type	Title	Mapped hazard
1963-02-25	1963-02-25	DR-144-OR	Major disaster	Floods	Inland Flooding
1962-10-16	1962-10-16	DR-136-OR	Major disaster	Severe Storms	Hazard not mapped (severe storm title names no single hazard); not counted
1957-03-01	1957-03-01	DR-69-OR	Major disaster	Flood	Inland Flooding
1956-07-20	1956-07-20	DR-60-OR	Major disaster	Storm & Flood	Inland Flooding
1955-12-29	1955-12-29	DR-49-OR	Major disaster	Flood	Inland Flooding

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.

27 Fire Management declarations (1973-08-17 to 2001-08-17) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

Public Assistance not placed in any Oregon county: 1 row, \$479,867.27; listed on the Oregon 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	2			0	0		1996 to 2026-06-30	
Cold Wave	175			16	0		1996 to 2026-06-30	Includes 117 Frost/Freeze records.
Drought	0			0	1		1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Earthquake	0			0	1			Storm Events does not record earthquakes; the USGS earthquake catalog is the source.
Hail	33			0	0		1955 to 2026-06-30	
Heat Wave	8			5	0		1996 to 2026-06-30	
Hurricane	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Ice Storm	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Inland Flooding	14			3	2		1996 to 2026-06-30	
Landslide	0			0	1		1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)

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
Lightning	4			0	0		1996 to 2026-06-30	
Strong Wind	135			9	0		1955 to 2026-06-30	Includes 118 High Wind and 1 Strong Wind records.
Tornado	5			0	0		1950 to 2026-06-30	
Volcanic Activity	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Wildfire	107			35	9		1996 to 2026-06-30	
Winter Weather	144			36	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	Flags	Why listed
2024-09-01	Wildfire		\$4,000,000 property; \$0 crops (zone total, 2024 dollars)	0, 0	NWS zone ORZ030 (NORTHERN & EASTERN KLAMATH COUNTY & WESTERN LAKE COUNTY), zone-level	within last 5 years	B1-c worst recorded: Wildfire
2024-07-06	Excessive Heat		\$0 property; \$0 crops (zone total, 2024 dollars)	1, 0	NWS zone ORZ029 (KLAMATH BASIN), zone-level	within last 5 years	deaths or injuries recorded
2024-07-05	Excessive Heat		\$0 property; \$0 crops (zone total, 2024 dollars)	0, 0	NWS zone ORZ027 (SOUTH CENTRAL OREGON CASCADES), zone-level	within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2017-01-21	High Wind	108 kt (124 mph) measured gust	\$0 property; \$0 crops (zone total, 2017 dollars)	0, 0	NWS zone ORZ028 (SISKIYOU MOUNTAINS & SOUTHERN OREGON CASCADES), zone-level		B1-c worst recorded: High Wind and Strong Wind
2011-01-02	Winter Weather		\$50,000 property; \$0 crops (zone total, 2011 dollars)	0, 0	NWS zone ORZ030 (NORTHERN & EASTERN KLAMATH COUNTY & WESTERN LAKE COUNTY), zone-level		B1-c worst recorded: Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet
2009-12-05	Extreme Cold/ Wind Chill		\$0 property; \$0 crops (zone total, 2009 dollars)	0, 0	NWS zone ORZ027 (SOUTH CENTRAL OREGON CASCADES), zone-level		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2007-07-06	Thunderstorm Wind	70 kt (81 mph) estimated gust	\$0 property; \$0 crops (2007 dollars)	0, 0	BONANZA		B1-c worst recorded: Thunderstorm Wind
1998-01-02	Winter Storm		damage not reported	2, 0	Storm Events area SOUTH CENTRAL OREGON (legacy zone code ORZ015), zone-level		deaths or injuries recorded
1998-01-01	Winter Storm		damage not reported	1, 0	Storm Events area LAKE/KLAMATH T X W (legacy zone code ORZ015), zone-level		deaths or injuries recorded
1997-01-01	Flood		\$9,000,000 property; \$2,900,000 crops (zone total, 1997 dollars)	0, 0	Storm Events area SOUTH CENTRAL OREGON (legacy zone code ORZ015), zone-level		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
1987-06-30	Hail	2 in	damage not recorded (pre-1996 record)	0, 0	location not recorded		B1-c worst recorded: Hail
1962-05-19	Tornado	F1, 0.5 mi path length (whole path, pre-1996), 20 yd wide	\$2,500 property; crops not recorded (1962 dollars)	0, 0	location not recorded		B1-c worst recorded: Tornado

The full list is in the Excel file, sheet "B1-d Storm Events history" (627 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	0.0333	events per year	about 1 in 30 years	Possible	FEMA annualized frequency (modeled)	1	1994 to 2023 (30 years)	see B1-f	
Cold Wave	0.119	event-days per year	about 0.119 days per year	Likely	Storm Events event-days in 6 of 30 years, 1996 to 2025 (20%)	2.25	2005-11-12 to 2024-11-12 (19 years)	countywide	
Drought	91.9	event-days per year	about 91.9 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	2,576	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	No Storm Events drought record, 1996 to 2025
Earthquake	0.0167	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 1.67%			not shown	modeled	see B1-f	No descriptor (Storm Events does not record earthquakes).
Hail	0.168	events per year	about 1 in 6 years	Likely	FEMA annualized frequency (modeled)	6.4 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	3.18	event-days per year	about 3.18 days per year	Likely	Storm Events event-days in 5 of 30 years, 1996 to 2025 (16.7%)	41.9	2005-11-12 to 2024-11-12 (19 years)	countywide	
Hurricane		events per year					1851 to 2024 (Atlantic); 1949 to 2024 (Pacific)	see B1-f	Not Applicable in NRI for this county; no descriptor.
Ice Storm	0.0185	event-days per year	about 0.0185 days per year		Storm Events event-days in 0 of 30 years, 1996 to 2025 (0%)	1	1946-12-31 to 2014-02-12 (67 years)	countywide	No Storm Events ice storm record, 1996 to 2025
Inland Flooding	0.393	event-days per year	about 0.393 days per year	Likely	Storm Events event-days in 9 of 30 years, 1996 to 2025 (30%)	11	1996 to 2023 (28 years)	see B1-f	
Landslide	1.4	events per year (modeled)	about 1.4 per year	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	14.1	days per year with a strike	about 14.1 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.0397	events per year	about 1 in 25 years	Possible	FEMA annualized frequency (modeled)	2	1986 to 2023 (38 years)	countywide	
Tornado	0.0538	events per year	about 1 in 19 years	Possible	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	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
Volcanic Activity	0.0036	annual probability	about 1 in 278 years	Unlikely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Wildfire	0.00571	annual probability at a location	chance a given location in the county burns in a year: 0.571%	Likely	Storm Events records in 18 of 30 years, 1996 to 2025 (60%)	not shown	modeled	see B1-f	
Winter Weather	25.5	event-days per year	about 25.5 days per year	Highly likely	Storm Events event-days in 28 of 30 years, 1996 to 2025 (93.3%)	484	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	20	30	0.667
Hail	2.00 in+	1996 to 2025	0	30	0
Thunderstorm Wind (counted as NRI Strong Wind)	50-64 kt	1996 to 2025	11	30	0.367
Thunderstorm Wind (counted as NRI Strong Wind)	65 kt+	1996 to 2025	1	30	0.0333
Thunderstorm Wind (counted as NRI Strong Wind)	unmeasured or below 50 kt	1996 to 2025	1	30	0.0333
Tornado	EF0-1	1996 to 2025	3	30	0.1
Tornado	EF2-3	1996 to 2025	0	30	0
Tornado	EF4-5	1996 to 2025	0	30	0
Tornado	unrated (EFU)	1996 to 2025	0	30	0

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

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

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

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

Range of census tract risk within the county

Source: 5

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Avalanche	11 of 22	73.9	76.9	79.3	Relatively Low 11, Not Applicable 11
Cold Wave	22 of 22	45.3	61.7	80.4	Relatively High 3, Relatively Moderate 17, Relatively Low 2
Drought	20 of 22	67.2	73.0	84.2	Relatively Low 5, Very Low 15, No Rating 2
Earthquake	22 of 22	67.8	84.9	94.2	Relatively High 5, Relatively Moderate 13, Relatively Low 4
Hail	22 of 22	27.7	38.4	61.2	Relatively Low 13, Very Low 9
Heat Wave	22 of 22	29.1	47.8	73.4	Relatively Moderate 7, Relatively Low 15
Hurricane	0 of 22				Not Applicable 22
Ice Storm	22 of 22	3.5	8.1	21.7	Very Low 22
Inland Flooding	22 of 22	22.6	63.4	95.6	Relatively High 7, Relatively Moderate 7, Relatively Low 8
Landslide	22 of 22	9.8	63.6	92.5	Relatively Low 6, Very Low 16
Lightning	22 of 22	25.4	40.5	67.9	Relatively Moderate 5, Relatively Low 17

Hazard	Tracts <i>rated of all</i>	NRI risk score, 0 to 100			Tracts by rating
		Min	Median	Max	
Strong Wind	22 of 22	9.2	13.4	19.5	Very Low 22
Tornado	22 of 22	1.7	2.2	3.3	Very Low 22
Volcanic Activity	22 of 22	80.4	83.8	98.6	Relatively Moderate 1, Relatively Low 3, Very Low 18
Wildfire	22 of 22	47.7	92.5	98.8	Relatively High 5, Relatively Moderate 8, Relatively Low 6, Very Low 3
Winter Weather	22 of 22	80.7	92.6	97.8	Very High 3, Relatively High 19

Drought: Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range mostly reflects where crop and livestock value is.

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, drought, 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 (crop and livestock value where a line above names agriculture).

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>
Klamath County	County	No approved plan on record	FMA RL 0, SRL 0; any 0	\$25,404.35	0 total; no approved plan
Klamath Falls city	City	No approved plan on record	FMA RL 0, SRL 0; any 0	no Public Assistance recorded	14 total; no approved 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.

No approved plan on record, so there is no approval date to count from.

- 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 plan <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	\$583,461	n/a	10	\$1	n/a	\$456,667	0.000239%				
Cold Wave	\$16,642,627,353	\$248,010,229	69,248	\$779	\$15,547	\$1,720,607	under 0.0001%				
Drought	n/a	\$114,767,048	n/a	n/a	\$9,815	n/a	0.00855% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$29,531,861,045	n/a	69,413	\$6,974,180	n/a	\$3,777,824	0.0236%				
Hail	\$16,642,627,353	\$248,010,229	69,248	\$51,812	\$21,506	\$7,212	0.000311%				
Heat Wave	\$16,642,627,353	\$248,010,229	69,248	\$213	\$24,061	\$747,122	under 0.0001%				
Hurricane											Not Applicable in NRI for this county
Ice Storm	\$16,642,627,353	n/a	69,248	\$823	n/a	\$14,164	under 0.0001%				
Inland Flooding	\$16,624,021,311	\$40,167,165	749	\$15,365,039	\$51,191	\$45,548	n/a (see note)				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	\$441,263,321	n/a	1,914	\$1,821	n/a	\$406	0.000413%				
Lightning	\$16,642,627,353	n/a	69,248	\$10,323	n/a	\$173,572	under 0.0001%				
Strong Wind	\$16,642,627,353	\$248,010,229	69,248	\$9,393	\$360	\$29,309	under 0.0001%				

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 plan <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
Tornado	\$16,642,627,353	\$248,010,229	69,248	\$7,471	\$35	\$4,603	under 0.0001%				
Volcanic Activity	\$16,642,627,353	n/a	69,248	\$11,909	n/a	\$14,124	under 0.0001%				
Wildfire	\$2,883,322,979	\$112,489,043	18,911	\$2,391,819	\$1,845	\$168,975	0.083%				
Winter Weather	\$16,642,627,353	\$248,010,229	69,248	\$771	under \$1	\$424,025	under 0.0001%				

Totals since the plan: not available. No approved plan on record, so there is no approval date to count from.

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	69,248
Building value (total, not at risk)	\$16,642,627,353
Agriculture value (total, not at risk)	\$248,010,229
NRI risk rating (all hazards)	Relatively Low
Expected annual loss, buildings and agriculture, all hazards	\$24,950,715
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)	\$7,584,157
Social vulnerability rating	Relatively Moderate
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 and state-level rows

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
Statewide, no county in FEMA's file	0	0	1	0	1	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>
Klamath County	410109	0	0	0	0	0	0	0
Klamath Falls city	410112	0	0	0	0	0	0	0

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

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

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

Sources: 1, 4

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

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

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

Exact counts; no count suppression.

Sources

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

1. FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-29T134039Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)
 2. FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-29T162832Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
 3. FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-29T150754Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
 4. FEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-30, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)
 5. FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-30, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
 6. NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-30, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
 7. NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-30, <https://www.weather.gov/gis/ZoneCounty>
 8. U.S. Census Bureau, Census 2024 Gazetteer, 2020 place by county, CT county-to-cousub crosswalk, version 2024-gazetteer, pulled 2026-09-30, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gazetteer/2024_Gaz_counties_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_cousubs_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_elsd_national.zip, https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024_Gaz_scscd_national.zip, https://www2.census.gov/geo/docs/reference/codes2020/national_place_by_county2020.txt, https://www2.census.gov/geo/docs/reference/ct_change/ct_cou_to_cousub_crosswalk.xlsx (used to match place names and codes; no table prints its values)
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What this packet is and what the plan adds

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

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

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

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