

Benton County, WA

Risk-assessment baseline packet

Unit **County area 53005** Release **2026-10** As of **2026-09-28** Storm Events data through **2026-06-30**

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

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

OPENFEMA DISCLAIMER

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

Plan clock

Status	Expired on 2024-11-18	Plan	Benton County Hazard Mitigation Plan (FEMA plan 104423)
Approved	2019-11-19	Expires	2024-11-18
As of	2026-09-28	Days	679 days since expiry
Update underway	FEMA tracker shows a plan in review		

Generally not eligible for FEMA mitigation project grants (HMGP, FMA) until a new plan is approved, barring a 44 CFR 201.6(a)(3) exception. Planning grants are not affected.

What changed since your last plan (approved 2019-11-19)

New federal declarations	EM-3427-WA (non-natural, not counted), DR-4481-WA (non-natural, not counted), EM-3629-WA (3 declaration rows; 1 counted incident)	Storm Events records since approval	42 (data through 2026-06-30)
Repetitive loss now	FMA RL 0, SRL 3 (44 CFR 77.2); any definition: 9	Repeat-flood change	First release: no prior release to compare.

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

Plan status for every jurisdiction listed in this county

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry <i>negative = days since expiry</i>	Update underway	Notes
Benton County	County	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	
Benton City city	City	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Kennewick city	City	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	
Prosser city	City	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	
Richland city	City	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	
West Richland city	City	Expired on 2024-11-18	Benton County Hazard Mitigation Plan (FEMA plan 104423)	2019-11-19	2024-11-18	-679	FEMA tracker shows a plan in review	

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

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

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Supports B1-a: hazards

Hazards NRI does not cover: check locally

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

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

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage	EAL total (see note) modeled dollars per year	Storm Events records since 1996 count	Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
1	Inland Flooding	Relatively Moderate	Relatively Moderate	\$40,272,531	\$252	\$6,908	\$40,279,691	12		
2	Earthquake	Relatively Moderate	Relatively Moderate	\$6,278,363		\$3,341,955	\$9,620,318			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
3	Wildfire	Relatively Moderate	Relatively Moderate	\$6,386,616	\$19,848	\$482,473	\$6,888,937	30		
4	Heat Wave	Relatively Moderate	Relatively Moderate	\$1,194	\$293,126	\$5,313,352	\$5,607,672	14		
5	Cold Wave	Relatively Moderate	Relatively High	\$192	\$567,874	\$3,941,334	\$4,509,400	12		Includes 5 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
6	Ice Storm	Relatively High	Relatively High	\$53		\$929,179	\$929,232	6		
7	Strong Wind	Relatively Low	Relatively Low	\$83,843	\$1,270	\$443,331	\$528,444	141		Includes 93 High Wind records and 5 Strong Wind records, event types the NRI definition of this hazard leaves out.
8	Winter Weather	Relatively High	Relatively High	\$6,578	\$7,789	\$481,539	\$495,906	29		

Rank by EAL	Hazard	NRI risk rating	EAL rating	EAL buildings modeled dollars per year	EAL agriculture modeled dollars per year	EAL population equivalence statistical value of life and injury, \$13.7M per life, not property damage	EAL total (see note) modeled dollars per year	Storm Events records since 1996 count	Evidence for an omission NRI Not Applicable, no declaration and no Storm Events record since 1996	Storm Events coverage note
9	Lightning	Relatively Moderate	Relatively Moderate	\$24,830		\$375,627	\$400,457	0		No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
10	Hail	Relatively Low	Relatively Low	\$15,615	\$241,132	\$47,788	\$304,535	12		
11	Tornado	Very Low	Very Low	\$103,387	\$925	\$135,382	\$239,693	4		
12	Drought	Very Low	Very Low		\$20,260		\$20,260	1		
13	Landslide	Relatively Low	Relatively Low	\$12,905		\$99	\$13,004	1		
14	Volcanic Activity	Very Low	Very Low	\$3		\$853	\$856	0		Declared 1 time; no Storm Events record of this type. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
15	Avalanche	Very Low	Very Low	\$0		\$148	\$148	0		No recorded events in Storm Events since 1996 (data through 2026-06-30).
	Coastal Flooding	Not Applicable	Not Applicable					0	NRI rates coastal flooding Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30).
	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-3227-WA 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).
	Tsunami	Not Applicable	Not Applicable					0	NRI rates tsunami Not Applicable for this county, and no federal declaration for this county names it.	No recorded events in Storm Events since 1996 (data through 2026-06-30). Storm Events coverage of this hazard is limited; absence is not evidence of low risk.

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
 NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

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

Supports B1-b: location

Where each hazard occurs

Hazard	Location	Census tracts rated <i>rated of all tracts</i>
Avalanche	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	6 of 45
Coastal Flooding	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 45
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	34 of 45
Earthquake	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	45 of 45
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
Hurricane	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 45
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
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.	45 of 45
Landslide	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	44 of 45
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45
Tornado	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	45 of 45
Tsunami	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	0 of 45
Volcanic Activity	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	45 of 45
Wildfire	Census tract rating counts from the National Risk Index tract table (see B1-f). Tract maps and place names are not in this packet.	41 of 45
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	45 of 45

SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Supports B1-c: extent

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

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

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	7, 2002 to 2022 (7 zone-level)	1 day to 14 days (median 2 days); 6 with a recorded value	14 consecutive days, 2005-12-08 to 2005-12-21, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Wind chill: in event narratives only; local data required.
Frost/Freeze (outside NRI Cold Wave definition)	crop damage	5, 2022 to 2024 (5 zone-level)		No crop damage reported in 5 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Temperature: in event narratives only; local data required.
Drought	US Drought Monitor D-scale	1, 1999 to 1999 (1 zone-level)	31 days; 1 with a recorded value	31 days (1 month), 1999-07-01 to 1999-07-31, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only.
Earthquake	Modified Mercalli (local data)	0					No Storm Events record; local data required (e.g., USGS).
Hail	hail size (inches)	14, 1970 to 2019	0.75 in to 1 in (median 0.88 in); 13 with a recorded value	1 in hail, 2019-05-28; same size also recorded on 1970-07-04, 2012-07-14, 2012-07-20, 2013-06-29, 2017-05-04		Event records naming member places: Prosser city (2 records), Benton City city (1 record), Kennewick city (1 record), Richland city (1 record).	
Excessive Heat, Heat	heat index (narratives)	14, 2002 to 2024 (14 zone-level)	1 day to 8 days (median 4.5 days); 12 with a recorded value	8 consecutive days, 2022-07-25 to 2022-08-01, zone-level		Zone-level records: applies countywide; national data do not locate these events within the county.	Heat index: in event narratives only; local data required.
Hurricane, Tropical Storm, Tropical Depression	Saffir-Simpson	0					Storm Events files every zone of a storm's episode under the storm's event type and category, so a Hurricane (Typhoon) record, especially an inland or remnant one, does not by itself mean hurricane-force winds here; read the damage and wind columns.
Ice Storm	Sperry-Piltz (local data)	6, 1996 to 2017 (6 zone-level)		No damage reported in 6 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Ice thickness: in event narratives only; local data required.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Flash Flood, Flood, Lakeshore Flood	damage and flood days (FIRM for depth)	12, 1997 to 2019 (4 zone-level)		Flood, 2009-01-08, \$453,000 property; \$0 crops (2009 dollars)		Event records naming member places: Prosser city (2 records), Richland city (2 records). Zone-level records (4) apply countywide.	Flood depth: see the FEMA Flood Insurance Rate Map. Storm Events damage can be \$0 or blank even for a major flood, so the worst record here may not be the worst flood; compare FEMA Public Assistance by declaration in B1-d.
Debris Flow	none (count and damage)	1, 2012 to 2012 (1 zone-level)		No damage reported in 1 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Physical measure: in event narratives only; local data required.
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	0					Storm Events lists lightning with damage or casualties; physical measure in event narratives only; local data required.
High Wind and Strong Wind (outside NRI Strong Wind definition)	wind speed (kt and mph)	98, 1997 to 2026 (98 zone-level)	35 kt (40 mph) to 83 kt (96 mph) (median 56 kt (64 mph)); 93 with a recorded value	83 kt (96 mph) measured gust, High Wind, 2011-01-16; NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties	Strong Wind, 2018-04-27, \$1,000,000 property; \$0 crops, reported for the zone (2018 dollars)	Zone-level records: applies countywide; national data do not locate these events within the county.	
Thunderstorm Wind	wind speed (kt and mph)	52, 1978 to 2020	50 kt (58 mph) to 70 kt (81 mph) (median 53 kt (61 mph)); 46 with a recorded value	70 kt (81 mph) estimated gust, Thunderstorm Wind, 2006-05-19	Thunderstorm Wind, 2002-07-07, \$20,000 property; crops not reported (2002 dollars)	Event records naming member places: Kennewick city (6 records), Richland city (5 records), Prosser city (3 records), West Richland city (1 record).	

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Tornado	Enhanced Fujita (F before Feb 2007)	5, 1956 to 2020	F/EF0; 5 with a recorded value	EF0 tornado, 2016-05-21, 0.15 mi within this county, 100 yd wide, \$20,000 property; \$0 crops (2016 dollars)		No event record names a member place.	From 1996 on, tornado records are per-county segments and length is the path length within this county (NWS Instruction 10-1605); records before 1996 may give the whole path length, including the path outside this county, and before 1996 a tornado is listed once, under the county where it began, with the whole path's rating; counties farther along the path may not list it. Length is not used to rank tornadoes.
Tsunami	none (count and damage)	0					Physical measure: in event narratives only; local data required.
Volcanic Ash, Volcanic Ashfall	Volcanic Explosivity Index (local data)	0					Physical measure: in event narratives only; local data required.
Wildfire	acres burned (local data)	30, 1997 to 2020 (27 zone-level)		Wildfire, 2005-06-25, \$46,000 property; crops not reported, reported for the zone (2005 dollars); NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties		Event records naming member places: Prosser city (1 record). Zone-level records (27) apply countywide.	Acres burned: in event narratives only; local data required.
Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet	none in data (snowfall local)	29, 1998 to 2022 (29 zone-level)		No damage reported in 29 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	Snow depth: in event narratives only; local data required.

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

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

SOURCES

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

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

Supports B1-d: previous occurrences

Declaration rows

20

Counted incidents

17

Federal disaster declarations for this county

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance <i>federal share obligated, nominal dollars</i>	Flags	Notes
2025-12-12	2025-12-09	EM-3629-WA	Emergency	SEVERE STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Strong Wind	none found	new since last plan; within last 5 years	
2020-03-22	2020-01-20	DR-4481-WA	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$361,212.02	new since last plan	
2020-03-13	2020-01-20	EM-3427-WA	Emergency	COVID-19	Non-natural, not counted	none found	new since last plan	same incident as DR-4481
2017-04-21	2017-01-30	DR-4309-WA	Major disaster	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Winter Weather	\$1,756,801.90		
2016-08-01	2016-07-31	FM-5142-WA	Fire management	SOUTH WARD GAP FIRE	Wildfire	none found		
2009-08-22	2009-08-21	FM-2827-WA	Fire management	DRY CREEK FIRE COMPLEX	Wildfire	none found		
2009-03-02	2008-12-12	DR-1825-WA	Major disaster	SEVERE WINTER STORM AND RECORD AND NEAR RECORD SNOW	Winter Weather	\$67,594.08		
2009-01-30	2009-01-06	DR-1817-WA	Major disaster	SEVERE WINTER STORM, LANDSLIDES, MUDSLIDES, AND FLOODING	Inland Flooding (primary); also designated: Landslide, Winter Weather	PA not declared for this county		
2005-09-07	2005-08-29	EM-3227-WA	Emergency	HURRICANE KATRINA EVACUATION	Hurricane: evacuation support, not a local hazard event; not counted	none found		
2001-03-01	2001-02-28	DR-1361-WA	Major disaster	EARTHQUAKE	Earthquake	PA not declared for this county		
2000-02-29	2000-06-28	FM-2311-WA	Fire management	TWO FORK FIRE	Wildfire	none found		
1997-01-17	1996-12-26	DR-1159-WA	Major disaster	SEVERE WINTER STORMS, LAND & MUDS SLIDES,FLOODING	Inland Flooding; Landslide; Winter Weather	none found		
1996-02-09	1996-01-26	DR-1100-WA	Major disaster	HIGH WINDS, SEVERE STORMS AND FLOODING	Inland Flooding (primary); also designated: Strong Wind	none found		
1990-01-18	1990-01-06	DR-852-WA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	none found		
1980-05-21	1980-05-21	DR-623-WA	Major disaster	VOLCANIC ERUPTION, MT. ST. HELENS	Volcanic Activity	none found		
1977-12-10	1977-12-10	DR-545-WA	Major disaster	SEVERE STORMS,MUDSLIDES, & FLOODING	Inland Flooding (primary); also designated: Landslide	none found		
1977-03-31	1977-03-31	EM-3037-WA	Emergency	DROUGHT	Drought	none found		
1975-12-13	1975-12-13	DR-492-WA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	none found		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance		Flags	Notes
						federal share obligated, nominal dollars			
1974-01-25	1974-01-25	DR-414-WA	Major disaster	SEVERE STORMS, SNOWMELT & FLOODING	Inland Flooding			none found	
1964-12-29	1964-12-29	DR-185-WA	Major disaster	HEAVY RAINS & FLOODING	Inland Flooding			none found	

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

SOURCES

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

Statewide declarations

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	Flags	Notes
1963-03-02	1963-03-02	DR-146-WA	Major disaster	FLOODS	Inland Flooding		
1962-10-20	1962-10-20	DR-137-WA	Major disaster	SEVERE STORMS	Hazard not mapped (severe storm title names no single hazard); not counted		
1957-03-06	1957-03-06	DR-70-WA	Major disaster	FLOODS	Inland Flooding		
1956-02-25	1956-02-25	DR-50-WA	Major disaster	FLOOD	Inland Flooding		

FEMA recorded these with designated area Statewide and no county. Listed on every county page in the state; not counted with county rows.
16 Fire Management declarations (1970-07-18 to 1998-09-25) FEMA filed as Statewide with no county; each names one local fire. Listed on the state page.

SOURCE

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

Public Assistance not placed in a county in this state: 1 row, \$248,381.20

Disaster number	Declared	Applicant	County field in FEMA data	PA obligated	Why not placed
				federal share obligated, nominal dollars	
4539	2020-04-23	Confederated Tribes of the Umatilla Indian Reservation	Umatilla County	\$248,381.20	county field is a county of another state and the applicant name does not identify a place in the declaring state

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

SOURCE

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

Previous occurrences by hazard, with explicit no-event rows

Hazard	Storm Events records <i>full period</i>	Since plan approval records	During plan review records	Last 5 years records	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Avalanche	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Coastal Flooding	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events

Hazard	Storm Events records <i>full period</i>	Since plan approval records	During plan review records	Last 5 years records	Declared incidents <i>distinct incidents</i>	Declared since approval <i>distinct incidents</i>	Period	Statement
Cold Wave	12	6	0	6	0	0	1996 to 2026-06-30	Includes 5 Frost/Freeze records, event types the NRI definition of this hazard leaves out.
Drought	1	0	0	0	1	0	1996 to 2026-06-30	
Earthquake	0	0	0	0	1	0		No Storm Events record; local data required (e.g., USGS).
Hail	14	0	1	0	0	0	1955 to 2026-06-30	
Heat Wave	14	9	0	6	0	0	1996 to 2026-06-30	
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	6	0	0	0	0	0	1996 to 2026-06-30	
Inland Flooding	12	0	1	0	10	1	1996 to 2026-06-30	
Landslide	1	0	0	0	5	1	1996 to 2026-06-30	
Lightning	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Strong Wind	150	21	2	14	2	1	1955 to 2026-06-30	Includes 93 High Wind records and 5 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	5	1	0	0	0	0	1950 to 2026-06-30	
Tsunami	0	0	0	0	0	0	1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Volcanic Activity	0	0	0	0	1	0	1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Wildfire	30	1	1	0	3	0	1996 to 2026-06-30	
Winter Weather	29	4	4	2	4	0	1996 to 2026-06-30	

SOURCES

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

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

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

Notable Storm Events records

Date	Event type	Magnitude or extent	Damage <i>nominal dollars</i>	Direct deaths, injuries <i>indirect not counted</i>	Location	Flags	Why listed
2024-07-12	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2024 dollars)	3, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	deaths or injuries recorded
2022-07-25	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2022 dollars)	0, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties	new since last plan; within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2021-06-26	Excessive Heat		\$0 property; \$0 crops, reported for the zone (2021 dollars)	2, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties	new since last plan	deaths or injuries recorded
2019-05-28	Hail	1 in	damage not reported	0, 0	BENTON CITY	during plan review, check whether your last plan included it	B1-c worst recorded: Hail
2016-05-21	Tornado	EF0, 0.15 mi within this county, 100 yd wide	\$20,000 property; \$0 crops (2016 dollars)	0, 0	KENNEWICK VISTA ARPT		B1-c worst recorded: Tornado
2011-01-16	High Wind	83 kt (96 mph) measured gust	damage not reported	0, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties		B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
2009-01-08	Flood		\$453,000 property; \$0 crops (2009 dollars)	0, 0	PROSSER to RICHLAND JCT		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2006-05-19	Thunderstorm Wind	70 kt (81 mph) estimated gust	damage not reported	0, 0	FINLEY		B1-c worst recorded: Thunderstorm Wind
2005-12-08	Cold/Wind Chill		damage not reported	0, 0	NWS zone WAZ028 (BENTON/FRANKLIN/WALLA WALLA T SE/E KCLICKITAT), zone-level: may include parts of neighboring counties		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2005-06-25	Wildfire		\$46,000 property; crops not reported, reported for the zone (2005 dollars)	0, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Wildfire
1999-07-01	Drought		damage not reported	0, 0	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties		B1-c worst recorded: Drought
1997-01-16	Ice Storm		damage not reported	1, 5	NWS zone WAZ028 (LOWER COLUMBIA BASIN), zone-level: may include parts of neighboring counties		deaths or injuries recorded

The full list is in the XLSX file, sheet "B1-d Storm Events history" (274 rows).

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

SOURCES

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

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

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

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

Supports B1-e: probability

Probability: FEMA annualized frequency and descriptor per hazard

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	0.01	events per year	about 1 in 100 years	Possible	FEMA annualized frequency (modeled)	0	1994 to 2023 (30 years)	see B1-f	0.01 is NRI's minimum avalanche frequency for a county in an avalanche susceptibility zone; NRI records no avalanche here, so the descriptor reflects the floor, not local events.
Coastal Flooding		events per year at a location (modeled)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Cold Wave	0.421	event-days per year	about 0.421 days per year	Likely	event-days in 6 of 30 years, 1996 to 2025 (20%)	8	2005-11-12 to 2024-11-12 (19 years)	countywide	Frost/Freeze records are not counted in this descriptor: they record crop freezes, not cold waves.
Drought	25.7	event-days per year	about 25.7 days per year	Possible	event-days in 1 of 30 years, 1996 to 2025 (3.33%)	826	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	NRI gives about 25.7 drought event-days a year here (its annualized frequency over 25.25 years; not its event count divided by the years), but Storm Events has a record in only 1 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.
Earthquake	0.00576	annual probability at a location	chance a given location in the county has at least minor- damage shaking in a year: 0.576%			not shown	modeled	see B1-f	Descriptor not assigned: the NRI value is the chance at a location in the county, not how often the hazard affects the county, and Storm Events does not record earthquakes.
Hail	0.214	events per year	about 1 in 5 years	Likely	FEMA annualized frequency (modeled)	8.2 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	7.89	event-days per year	about 7.89 days per year	Likely	event-days in 8 of 30 years, 1996 to 2025 (26.7%)	109	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 7.89 heat wave event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 8 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.

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
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	0.228	event-days per year	about 0.228 days per year	Likely	event-days in 4 of 30 years, 1996 to 2025 (13.3%)	16	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.393	event-days per year	about 0.393 days per year	Likely	event-days in 6 of 30 years, 1996 to 2025 (20%)	11	1996 to 2023 (28 years)	see B1-f	
Landslide	0.476	events per year (modeled)	about 1 in 2 years	Likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Lightning	7.44	days per year with a strike	about 7.44 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.294	events per year	about 1 in 3 years	Likely	FEMA annualized frequency (modeled)	12	1986 to 2023 (38 years)	countywide	
Tornado	0.0642	events per year	about 1 in 16 years	Possible	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami		annual probability at the most exposed location (used in place of a county value)				not shown	modeled	see B1-f	Not Applicable in NRI for this county; no descriptor.
Volcanic Activity	0.0131	annual probability	about 1 in 76 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Wildfire	0.0109	annual probability at a location	chance a given location in the county burns in a year: 1.09%	Likely	Storm Events records in 14 of 30 years, 1996 to 2025 (46.7%)	not shown	modeled	see B1-f	Descriptor from Storm Events, not NRI: the NRI value is the chance at a location in the county, not how often the hazard affects the county.

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
Winter Weather	7.95	event-days per year	about 7.95 days per year	Likely	event-days in 13 of 30 years, 1996 to 2025 (43.3%)	151	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 7.95 winter weather event-days a year here (its annualized frequency over 19 years; not its event count divided by the years), but Storm Events has a record in only 13 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.

FEMA annualized frequency (modeled) comes from the National Risk Index v1.20 (December 2025). It is not recorded events divided by years, and what it measures depends on the hazard. For most hazards it estimates how often the hazard affects this county each year: it counts events or event-days (drought, heat wave, cold wave, winter weather, ice storm and inland flooding are in days per year; lightning is the number of days per year with a recorded cloud-to-ground strike, from the NOAA Storm Prediction Center daily lightning climatology); it may count events in the surrounding area (hail, strong wind, tornado, hurricane and ice storm use a 49 km grid and buffers) and is averaged over the county's area; and some hazards use a minimum value for places with no recorded event. Earthquake, wildfire and coastal flooding are different: FEMA computes them for each census block and averages them over the county, so the value is the chance (for coastal flooding, the modeled number of floods per year) at a location in the county, which is lower than the chance that the hazard strikes somewhere in the county. Earthquake is the chance of at least minor-damage shaking (U.S. Geological Survey model); wildfire is the chance that a location burns in a large fire (U.S. Forest Service burn probability); coastal flooding comes from FEMA flood zones and NOAA high-tide flooding, so it can be above 1 where high-tide flooding is frequent. Tsunami is the value at the county's most exposed location, from recorded events and modeled return periods. For these four hazards the packet gives no "1 in N years" and takes the descriptor from Storm Events (none for earthquake) unless the value is 1 or more a year. Landslide is a U.S. Geological Survey modeled county rate spread by slope susceptibility. Volcanic activity is the chance that a volcano affecting the county erupts in a year. Drought counts only extreme and exceptional drought (D3 and D4). Source: FEMA, National Risk Index Technical Documentation v1.20, sections 5.2.2 (Table 5), 5.2.3, 7.4, 10.4, 16.5, 17.1, 17.3.1, 17.5, 20.3.1, 21.4, 22.4 and 6 to 23.

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Descriptor scale used in this packet (defined per unit)

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>

Intensity bands: historical frequency (Storm Events)

Hazard	Band	Years	Events <i>county-coded records</i>	Years in period	Events per year <i>events / years</i>
Hail	1.00-1.99 in	1996 to 2025	5	30	0.167
Hail	2.00 in+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	39	30	1.3
Strong Wind (Thunderstorm Wind records)	65 kt+	1996 to 2025	2	30	0.0667
Strong Wind (Thunderstorm Wind records)	unmeasured or below 50 kt	1996 to 2025	2	30	0.0667
Tornado	EF0-1	1996 to 2025	4	30	0.133
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

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

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

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

Supports B1-f: variation across the planning area

Range of census tract risk within the county

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Avalanche	6 of 45	17.3	21.4	24.7	Very Low 6, Not Applicable 39	
Coastal Flooding	0 of 45				Not Applicable 45	
Cold Wave	45 of 45	16.8	65.7	95.1	Relatively High 3, Relatively Moderate 41, Very Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Drought	34 of 45	67.1	69.4	89.8	Relatively Low 3, Very Low 31, No Rating 11	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is all of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally.
Earthquake	45 of 45	33.2	76.4	89.2	Relatively High 2, Relatively Moderate 20, Relatively Low 22, Very Low 1	
Hail	45 of 45	12.4	26.9	96.8	Relatively High 1, Relatively Moderate 1, Relatively Low 9, Very Low 34	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. Agriculture is 79% of NRI's expected annual loss for this hazard in the county, so the tract range above mostly reflects where crop and livestock value is, not where buildings and people are. Confirm locally.

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Heat Wave	45 of 45	2.2	83.5	94.3	Relatively High 20, Relatively Moderate 24, Very Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Hurricane	0 of 45				Not Applicable 45	
Ice Storm	45 of 45	1.3	83.0	95.9	Relatively High 4, Relatively Moderate 35, Relatively Low 2, Very Low 4	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Inland Flooding	45 of 45	9.5	68.3	97.8	Very High 1, Relatively High 13, Relatively Moderate 17, Relatively Low 13, Very Low 1	
Landslide	44 of 45	13.4	53.1	97.0	Relatively Moderate 1, Relatively Low 11, Very Low 32, No Rating 1	
Lightning	45 of 45	1.1	41.9	70.9	Relatively Moderate 11, Relatively Low 32, Very Low 2	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Strong Wind	45 of 45	10.3	40.0	64.3	Relatively Moderate 1, Relatively Low 42, Very Low 2	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Tornado	45 of 45	3.8	12.7	25.7	Very Low 45	
Tsunami	0 of 45				Not Applicable 45	
Volcanic Activity	45 of 45	41.2	84.6	96.1	Relatively Low 5, Very Low 40	
Wildfire	41 of 45	18.5	93.0	98.8	Relatively High 15, Relatively Moderate 8, Relatively Low 10, Very Low 8, No Rating 4	
Winter Weather	45 of 45	16.8	83.0	94.9	Relatively High 33, Relatively Moderate 11, Very Low 1	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.

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

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Per-member block (Starter, confirm locally)

Member	Type	Plan status	Repetitive loss	Public Assistance matched	Event records naming this place	Notes
			<i>FMA RL and SRL (44 CFR 77.2); repeat- flood, any definition</i>		<i>all years; since the member's plan</i>	
Benton County	County	Expired on 2024-11-18	FMA RL 0, SRL 2; any 7	\$638,245.61	0; 0	Includes \$173,622.90 for declarations not counted as hazard incidents (DR-4481-WA).
Benton City city	City	Expired on 2024-11-18	FMA RL 0, SRL 0; any 0	\$33,685.28	1; 0	

Member	Type	Plan status	Repetitive loss	Public Assistance matched	Event records naming this place	Notes
			<i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	<i>federal share obligated, nominal dollars</i>	<i>all years; since the member's plan</i>	
Kennewick city	City	Expired on 2024-11-18	FMA RL 0, SRL 0; any 0	\$1,266,115.13	7; 1	
Prosser city	City	Expired on 2024-11-18	FMA RL 0, SRL 0; any 0	\$54,171.59	8; 1	
Richland city	City	Expired on 2024-11-18	FMA RL 0, SRL 0; any 0	none found	8; 0	
West Richland city	City	Expired on 2024-11-18	FMA RL 0, SRL 1; any 2	\$5,801.27	1; 0	

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

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

SOURCES

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

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

Local data required

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

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

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

Hazard	Building exposure	Agriculture exposure	Population exposed	EAL buildings	EAL agriculture	EAL population equivalence	EAL as % of exposure	Storm Events damage since 2019-11-19	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>statistical value of life and injury, \$13.7M per life, 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>	
Avalanche	\$0		under 1	\$0		\$148					building exposure is 0 in NRI
Coastal Flooding											Not Applicable in NRI for this county

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL as % of exposure <i>buildings; agriculture where noted</i>	Storm Events damage since 2019-11-19 <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
Cold Wave	\$39,345,841,761	\$1,294,299,762	206,541	\$192	\$567,874	\$3,941,334	under 0.0001%		\$0		
Drought		\$744,008,360			\$20,260		0.00272% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$69,232,928,785		206,873	\$6,278,363		\$3,341,955	0.00907%				
Hail	\$39,345,841,761	\$1,294,299,762	206,541	\$15,615	\$241,132	\$47,788	under 0.0001%				
Heat Wave	\$39,345,841,761	\$1,294,299,762	206,541	\$1,194	\$293,126	\$5,313,352	under 0.0001%		\$0		
Hurricane											Not Applicable in NRI for this county
Ice Storm	\$39,317,739,371		206,318	\$53		\$929,179	under 0.0001%				
Inland Flooding	\$39,335,884,620	\$14,213,211	1,963	\$40,272,531	\$252	\$6,908	n/a (see note)			none found (1 declaration)	NRI counts the full building value of any census block with some flood loss; this is not the value of buildings in the floodplain. Use local FIRM overlays for B2-a/B2-b. EAL as % of exposure: n/a.
Landslide	\$556,618,217		2,561	\$12,905		\$99	0.00232%			none found (1 declaration)	
Lightning	\$39,345,841,761		206,541	\$24,830		\$375,627	under 0.0001%				
Strong Wind	\$39,345,841,761	\$1,294,299,762	206,541	\$83,843	\$1,270	\$443,331	0.000213%	\$0	\$0	none found (1 declaration)	
Tornado	\$39,345,841,761	\$1,294,299,762	206,541	\$103,387	\$925	\$135,382	0.000263%	\$0			
Tsunami											Not Applicable in NRI for this county
Volcanic Activity	\$39,345,841,761		206,541	\$3		\$853	under 0.0001%				
Wildfire	\$4,155,182,805	\$580,807,908	31,726	\$6,386,616	\$19,848	\$482,473	0.154%		\$0		
Winter Weather	\$39,345,841,761	\$1,294,299,762	206,541	\$6,578	\$7,789	\$481,539	under 0.0001%		\$0		

Totals since 2019-11-19 (Storm Events through 2026-06-30): 4 county-coded records, 4 with a damage value recorded (including \$0), \$0; 38 zone-level records, 38 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance on counted declarations none found (1 declaration, 0 with PA).

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

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

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

SOURCES

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)
NOAA NCEI, NOAA NCEI Storm Events Database, details files (csvfiles v1.0), version c20260918, pulled 2026-09-28, <https://www.ncei.noaa.gov/pub/data/swdi/stormevents/csvfiles/>
NOAA National Weather Service, NWS county-public forecast zones correlation file, version bp03mr20 to bp16ap26 (11 files; newest bp16ap26), pulled 2026-09-28, <https://www.weather.gov/gis/ZoneCounty>
FEMA, OpenFEMA DisasterDeclarationsSummaries v2, version 2026-09-27T010817Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v2/DisasterDeclarationsSummaries> (API)
FEMA, OpenFEMA PublicAssistanceFundedProjectsSummaries v1, version 2026-09-26T151157Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/PublicAssistanceFundedProjectsSummaries> (API)
FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)

Supports B2-a: context

County context

Measure	Value
Population	206,541
Building value (total, not at risk)	\$39,345,841,761
Agriculture value (total, not at risk)	\$1,294,299,762
NRI risk rating (all hazards)	Relatively Moderate
Expected annual loss, buildings and agriculture, all hazards	\$54,338,586
Expected annual loss, population equivalence, all hazards (NRI values each statistical life at \$13.7M; a modeled value of expected deaths and injuries, not property damage)	\$15,499,969
Social vulnerability rating	Relatively Low
Community resilience rating	Relatively Moderate
NRI version	December 2025

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

SOURCE

FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (download, 25 MB), https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_CensusTracts.zip (download, 635 MB)

Supports B2-c: repetitive loss

Repetitive loss in this county, both definitions

Definition	Properties	Severe repetitive loss	Properties
Repetitive loss, FMA definition (44 CFR 77.2)	0	Severe repetitive loss, FMA definition (44 CFR 77.2)	3
Repetitive loss, NFIP insurance definition	9	Severe repetitive loss, NFIP insurance definition	3

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

SOURCES

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

Repeat-flood properties: county and state-level rows

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	3	9	3	9	0	1
WEST RICHLAND, CITY OF	0	1	2	1	2	0	0
BENTON COUNTY *	0	2	7	2	7	0	1
State level, not in this county: county not reported	0	0	2	0	2	0	0

SOURCESFEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)**Repeat-flood properties by plan member (NFIP community)**

Member	NFIP community ID	RL, FMA <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>	Note
Benton County	530237	0	2	7	2	7	0	1	
Benton City city	530010	0	0	0	0	0	0	0	
Kennewick city	530011	0	0	0	0	0	0	0	
Prosser city	530012	0	0	0	0	0	0	0	
Richland city	535533	0	0	0	0	0	0	0	
West Richland city	530014	0	1	2	1	2	0	0	

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

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

SOURCESFEMA, OpenFEMA NfipMultipleLossProperties v1, version 2026-08-04T164045Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/NfipMultipleLossProperties> (API)FEMA, OpenFEMA HazardMitigationPlanStatuses v1, version 2026-09-26T121003Z, pulled 2026-09-28, <https://www.fema.gov/api/open/v1/HazardMitigationPlanStatuses> (API)**County repeat-flood properties by occupancy group**

Occupancy group	RL, FMA <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	3	9	3	9	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

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

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

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

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

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

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

In this county 0 properties are FMA repetitive loss but not NFIP repetitive loss, and 9 properties are NFIP repetitive loss but not FMA repetitive loss.

Exact counts; no count suppression.

Sources

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

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

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

Hazard Plain release 2026-10. As of 2026-09-28; Storm Events data through 2026-06-30. File hazard-plain_2026-10_WA_53005. Preview: automated baseline.