

Pierce County, WA

Risk-assessment baseline packet

Unit **County area 53053** 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	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	Plan	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539), pending adoption here
Approved	2026-08-18 by FEMA; not yet adopted here	Expires	2031-08-17 once adopted
As of	2026-09-28	Update underway	FEMA tracker shows a plan approvable pending adoption

Not yet eligible: adopt the approved plan.

Not yet eligible: adopt the approved plan.

What changed since your last plan

Not available. Plan 111539 was approved by FEMA on 2026-08-18 but is not yet adopted here, so no since-plan counts are given.

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
Pierce County	County	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539), pending adoption here	2026-08-18 by FEMA; not yet adopted here	2031-08-17 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Bonney Lake city	City	Approved, expires 2031-08-17	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539)	2026-08-18	2031-08-17	1,784		

Jurisdiction	Type	Status	Plan	Approved	Expires	Days to expiry	Update underway	Notes
						<i>negative = days since expiry</i>		
Orting city	City	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539), pending adoption here	2026-08-18 by FEMA; not yet adopted here	2031-08-17 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Puyallup city	City	Approved, expires 2031-08-17	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539)	2026-08-18	2031-08-17	1,784		
University Place city	City	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539), pending adoption here	2026-08-18 by FEMA; not yet adopted here	2031-08-17 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
Riverside Fire & Rescue District	Fire/EMS District	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539), pending adoption here	2026-08-18 by FEMA; not yet adopted here	2031-08-17 once adopted		FEMA tracker shows a plan approvable pending adoption	Not yet eligible: adopt the approved plan.
West Pierce Fire & Rescue	Fire/EMS District	Approved, expires 2031-08-17	Pierce County Hazard Mitigation Plan (2025) (FEMA plan 111539)	2026-08-18	2031-08-17	1,784		

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.

CONTENTS

1. Plan clock, page 1	7. Supports B1-e: probability, page 13
2. What changed since your last plan, page 1	8. Supports B1-f: variation across the planning area, page 17
3. Supports B1-a: hazards, page 3	9. Supports B2-a and B2-b: assets and impacts, page 19
4. Supports B1-b: location, page 5	10. Supports B2-a: context, page 20
5. Supports B1-c: extent, page 5	11. Supports B2-c: repetitive loss, page 21
6. Supports B1-d: previous occurrences, page 9	12. Sources and OpenFEMA disclaimer, page 23

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	Earthquake	Relatively High	Very High	\$236,708,683		\$127,114,792	\$363,823,475			Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.
2	Inland Flooding	Relatively High	Relatively High	\$121,572,782	\$1,953	\$6,432	\$121,581,168	8		
3	Heat Wave	Relatively High	Relatively High	\$3,573	\$12,386	\$13,488,989	\$13,504,948	8		
4	Cold Wave	Relatively High	Relatively High	\$1,344	\$2,939	\$9,597,749	\$9,602,032	2		
5	Avalanche	Very High	Very High	\$2,802		\$8,587,698	\$8,590,500	2		
6	Volcanic Activity	Relatively High	Relatively High	\$2,997,864		\$3,795,164	\$6,793,028	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.
7	Coastal Flooding	Relatively Moderate	Relatively Moderate	\$1,400,230		\$93,996	\$1,494,226	3		
8	Lightning	Relatively High	Relatively High	\$63,803		\$1,419,729	\$1,483,532	5		

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>	EAL population equivalence <i>statistical value of life and injury, \$13.7M per life, not property damage</i>	EAL total (see note) <i>modeled dollars per year</i>	Storm Events records since 1996 <i>count</i>	Evidence for an omission <i>NRI Not Applicable, no declaration and no Storm Events record since 1996</i>	Storm Events coverage note
9	Tsunami	Relatively Low	Relatively Low	\$264,009		\$1,156,870	\$1,420,880	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	Tornado	Relatively Low	Relatively Low	\$194,558	\$103	\$943,501	\$1,138,162	7		
11	Ice Storm	Relatively High	Relatively High	\$170,115		\$556,989	\$727,104	7		
12	Strong Wind	Relatively Low	Relatively Low	\$469,724	\$1	\$74,328	\$544,053	51		Includes 26 High Wind records and 24 Strong Wind records, event types the NRI definition of this hazard leaves out.
13	Wildfire	Relatively Low	Relatively Low	\$378,189	\$2	\$7,371	\$385,562	1		
14	Landslide	Relatively Moderate	Relatively Moderate	\$345,919		\$19,767	\$365,686	6		
15	Winter Weather	Relatively Moderate	Relatively High	\$13,335	\$456	\$317,792	\$331,583	77		
16	Hail	Very Low	Very Low	\$58,831	\$394	\$11,504	\$70,729	1		
17	Drought	Very Low	Very Low		\$11		\$11	2		
	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).

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.	8 of 193
Coastal 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.	27 of 193
Cold Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	30 of 193
Drought	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	15 of 193
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.	193 of 193
Hail	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193
Heat Wave	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193
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 193
Ice Storm	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193
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.	193 of 193
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.	193 of 193
Lightning	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193
Strong Wind	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193
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.	193 of 193
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.	22 of 193
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.	193 of 193
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.	180 of 193
Winter Weather	Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.	193 of 193

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)	2, 2019 to 2021 (2 zone-level)		No damage reported in 2 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.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Coastal Flood, Storm Surge/ Tide	none in data (FIRM for depth)	3, 2012 to 2024 (3 zone-level)		Coastal Flood, 2012-12-17, \$75,000 property; crops not reported, reported for the zone (2012 dollars); NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Flood depth: see the FEMA Flood Insurance Rate Map.
Cold/Wind Chill, Extreme Cold/Wind Chill	wind chill	2, 2015 to 2016 (2 zone-level)	1 day; 1 with a recorded value	1 consecutive day, 2016-03-26, 1 direct death, 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. 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 Cold Wave definition)	crop damage	0					Temperature: in event narratives only; local data required.
Drought	US Drought Monitor D-scale	2, 2001 to 2005 (2 zone-level)	1 day to 21 days (median 11 days); 2 with a recorded value	21 days, 2005-03-10 to 2005-03-30, 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)	1, 2007 to 2007	0.88 in; 1 with a recorded value	0.88 in hail, 2007-10-19		No event record names a member place.	
Excessive Heat, Heat	heat index (narratives)	8, 2009 to 2023 (8 zone-level)	1 day to 5 days (median 4 days); 6 with a recorded value	5 consecutive days, 2023-05-12 to 2023-05-16, 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.

Hazard	Scale	Records <i>count, years</i>	Observed range	Worst recorded event	Most damaging (when different)	How it applies to members	Note
Ice Storm	Sperry-Piltz (local data)	7, 1996 to 2024 (7 zone- level)		Ice Storm, 2012-01-19, \$700,000 property; \$0 crops, reported for the zone (2012 dollars); NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		Zone-level records: applies countywide; national data do not locate these events within the county.	Ice thickness: in event narratives only; local data required.
Flash Flood, Flood, Lakeshore Flood	damage and flood days (FIRM for depth)	8, 1996 to 2015 (5 zone- level)		Flood, 2009-01-07, \$8,800,000 property; \$0 crops (2009 dollars)		Event records naming member places: Orting city (1 record). Zone-level records (5) 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)	6, 2007 to 2017 (4 zone- level)		Debris Flow, 2009-01-07, \$500,000 property; \$0 crops, reported for the zone (2009 dollars); NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		No event record names a member place. Zone-level records (4) apply countywide.	Physical measure: in event narratives only; local data required.
Lightning	annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names)	5, 1997 to 2013		Lightning, 2013-09-05, \$5,000 property; \$0 crops (2013 dollars)		Event records naming member places: Bonney Lake city (1 record), Puyallup city (1 record).	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)	50, 1996 to 2025 (50 zone- level)	26 kt (30 mph) to 77 kt (89 mph) (median 48 kt (55 mph)); 50 with a recorded value	77 kt (89 mph) measured, High Wind, 2000-12-14; Storm Events area TACOMA AREA (legacy zone code WAZ008), zone-level: may include parts of neighboring counties	High Wind, 2006-12-14, \$11,000,000 property; \$0 crops, reported for the zone (2006 dollars)	Zone-level records: applies countywide; national data do not locate these events within the county.	
Thunderstorm Wind	wind speed (kt and mph)	2, 1989 to 2013	39 kt (45 mph); 1 with a recorded value	39 kt (45 mph) measured gust, Thunderstorm Wind, 2013-05-13		No event record names a member place.	

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)	9, 1978 to 2015	F/EF0 to F/EF1 (median F/EF1); 8 with a recorded value	EF1 tornado, 2009-09-06, 9.6 mi within this county, 170 yd wide, \$180,000 property; \$0 crops (2009 dollars)		Event records naming member places: Bonney Lake city (2 records).	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)	1, 2020 to 2020 (1 zone- level)		No damage reported in 1 records.		Zone-level records: applies countywide; national data do not locate these events within the county.	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)	77, 1996 to 2025 (77 zone- level)		Heavy Snow, 2004-01-06, \$1,000,000 property; crops not reported, reported for the zone (2004 dollars); Storm Events area TACOMA AREA (legacy zone code WAZ008), zone-level: may include parts of neighboring counties		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

26

Counted incidents

22

Plan 111539 was approved by FEMA on 2026-08-18 but is not yet adopted here, so no since-plan counts are given.

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
2026-04-07	2025-12-05	DR-4906-WA	Major disaster	SEVERE STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding (primary); also designated: Landslide, Strong Wind	\$210,106.84	within last 5 years	
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	within last 5 years	same incident as DR-4906
2020-09-09	2020-09-08	FM-5360-WA	Fire management	SUMNER GRADE FIRE	Wildfire	none found		
2020-03-22	2020-01-20	DR-4481-WA	Major disaster	COVID-19 PANDEMIC	Non-natural, not counted	\$463,394,984.20		
2020-03-13	2020-01-20	EM-3427-WA	Emergency	COVID-19	Non-natural, not counted	none found		same incident as DR-4481
2012-03-05	2012-01-14	DR-4056-WA	Major disaster	SEVERE WINTER STORM, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding; Landslide; Winter Weather	\$7,885,223.05		
2009-03-02	2008-12-12	DR-1825-WA	Major disaster	SEVERE WINTER STORM AND RECORD AND NEAR RECORD SNOW	Winter Weather	\$489,496.63		
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	\$3,535,788.38		
2007-02-14	2006-12-14	DR-1682-WA	Major disaster	SEVERE WINTER STORM, LANDSLIDES, AND MUDSLIDES	Landslide; Winter Weather	\$5,151,649.99		
2006-12-12	2006-11-02	DR-1671-WA	Major disaster	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Inland Flooding; Landslide	\$7,971,041.59		
2005-09-07	2005-08-29	EM-3227-WA	Emergency	HURRICANE KATRINA EVACUATION	Hurricane: evacuation support, not a local hazard event; not counted	\$6,981.46		
2003-11-07	2003-10-15	DR-1499-WA	Major disaster	SEVERE STORMS AND FLOODING	Inland Flooding	PA not declared for this county		
2001-03-01	2001-02-28	DR-1361-WA	Major disaster	EARTHQUAKE	Earthquake	\$2,724,928.82		
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		
1996-01-03	1995-11-07	DR-1079-WA	Major disaster	SEVERE STORMS, HIGH WIND, AND FLOODING	Inland Flooding; Strong Wind	none found		
1993-03-04	1993-01-20	DR-981-WA	Major disaster	SEVERE STORMS & HIGH WIND	Strong Wind	none found		

Declared	Incident began	FEMA number	Type	Title	Mapped hazard	County Public Assistance	Flags	Notes
						<i>federal share obligated, nominal dollars</i>		
1991-03-08	1990-12-20	DR-896-WA	Major disaster	SEVERE STORMS & HIGH TIDES	Inland Flooding (primary); also designated: Coastal Flooding	none found		
1990-11-26	1990-11-09	DR-883-WA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	none found		
1990-01-18	1990-01-06	DR-852-WA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	none found		
1986-12-15	1986-11-22	DR-784-WA	Major disaster	SEVERE STORMS & FLOODING	Inland Flooding	PA not declared for this county		
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		
1972-03-24	1972-03-24	DR-328-WA	Major disaster	HEAVY RAINS & FLOODING	Inland Flooding	none found		
1965-05-11	1965-05-11	DR-196-WA	Major disaster	EARTHQUAKE	Earthquake	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 filed under this county for declarations that do not list it: 3 rows, \$3,403,306.02

FEMA number	Declared	Title	Applicant	PA obligated
				<i>federal share obligated, nominal dollars</i>
DR-4593-WA	2021-04-08	SEVERE WINTER STORM, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES	Puyallup Tribe of Indians	\$2,246,925.53
DR-4539-WA	2020-04-23	SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES	Tacoma Public Utilities	\$149,809.99
DR-4309-WA	2017-04-21	SEVERE WINTER STORMS, FLOODING, LANDSLIDES, MUDSLIDES	WESTERN FOREST IND MUSEUM DBA MT RAINIER SCENIC RR	\$1,006,570.50

FEMA's Public Assistance summaries file these applicants under this county, but FEMA's declaration rows for these disasters do not designate it (an electric cooperative or district serving several counties, for example). Not in any declaration row above and not counted.

SOURCES

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

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 <i>federal share obligated, nominal dollars</i>	Why not placed
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	2			1	0		1996 to 2026-06-30	
Coastal Flooding	3			2	1		1996 to 2026-06-30	
Cold Wave	2			0	0		1996 to 2026-06-30	
Drought	2			0	0		1996 to 2026-06-30	
Earthquake	0			0	2			No Storm Events record; local data required (e.g., USGS).
Hail	1			0	0		1955 to 2026-06-30	
Heat Wave	8			4	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	7			4	0		1996 to 2026-06-30	
Inland Flooding	8			0	15		1996 to 2026-06-30	
Landslide	6			0	7		1996 to 2026-06-30	
Lightning	5			0	0		1996 to 2026-06-30	

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
Strong Wind	52			8	4		1955 to 2026-06-30	Includes 26 High Wind records and 24 Strong Wind records, event types the NRI definition of this hazard leaves out.
Tornado	9			0	0		1950 to 2026-06-30	
Tsunami	0			0	0		1996 to 2026-06-30	No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events
Volcanic Activity	0			0	1		1996 to 2026-06-30	No Storm Events records of this type; 1 federal declared incident (see declarations table)
Wildfire	1			0	1		1996 to 2026-06-30	
Winter Weather	77			23	5		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
2023-05-12	Heat		\$0 property; \$0 crops, reported for the zone (2023 dollars)	0, 0	NWS zone WAZ555 (EAST PUGET SOUND LOWLANDS), zone-level: may include parts of neighboring counties	within last 5 years	B1-c worst recorded: Excessive Heat, Heat
2016-03-26	Cold/Wind Chill		\$0 property; \$0 crops, reported for the zone (2016 dollars)	1, 2	NWS zone WAZ569 (CASCADES OF PIERCE AND LEWIS COUNTIES), zone-level: may include parts of neighboring counties		B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill
2015-08-29	Strong Wind	47 kt (54 mph) measured gust	\$250,000 property; \$0 crops, reported for the zone (2015 dollars)	1, 4	NWS zone WAZ509 (Tacoma Area), zone-level: may include parts of neighboring counties		deaths or injuries recorded
2013-09-05	Lightning		\$5,000 property; \$0 crops (2013 dollars)	0, 0	PUYALLUP		B1-c worst recorded: Lightning
2013-05-13	Thunderstorm Wind	39 kt (45 mph) measured gust	\$30,000 property; \$0 crops (2013 dollars)	0, 0	EDGEWOOD		B1-c worst recorded: Thunderstorm Wind
2012-12-17	Coastal Flood		\$75,000 property; crops not reported, reported for the zone (2012 dollars)	0, 0	NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		B1-c worst recorded: Coastal Flood, Storm Surge/Tide
2012-01-19	Ice Storm		\$700,000 property; \$0 crops, reported for the zone (2012 dollars)	0, 0	NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		B1-c worst recorded: Ice Storm
2009-09-06	Tornado	EF1, 9.6 mi within this county, 170 yd wide	\$180,000 property; \$0 crops (2009 dollars)	0, 0	BONNEY LAKE		B1-c worst recorded: Tornado

Date	Event type	Magnitude or extent	Damage	Direct deaths, injuries	Location	Flags	Why listed
			<i>nominal dollars</i>	<i>indirect not counted</i>			
2009-01-07	Flood		\$8,800,000 property; \$0 crops (2009 dollars)	0, 0	FIFE to WILKESON		B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood
2006-12-14	High Wind	50 kt (58 mph) measured gust	\$11,000,000 property; \$0 crops, reported for the zone (2006 dollars)	2, 2	NWS zone WAZ509 (TACOMA AREA), zone-level: may include parts of neighboring counties		deaths or injuries recorded
2000-12-14	High Wind	77 kt (89 mph) measured	damage not reported	0, 0	Storm Events area TACOMA AREA (legacy zone code WAZ008), zone-level: may include parts of neighboring counties		B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition)
1996-11-19	Heavy Snow		damage not reported	1, 22	Storm Events area TACOMA AREA (legacy zone code WAZ008), 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" (183 rows).

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

SOURCES

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

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

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)	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
	<i>unit per row</i>								
Avalanche	0.9	events per year	about 0.9 per year	Likely	FEMA annualized frequency (modeled)	27	1994 to 2023 (30 years)	see B1-f	
Coastal Flooding	3.12	events per year at a location (modeled)	about 3.1 per year at a given location in the county	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	Descriptor from NRI: the rate at a location is 1 or more a year, so the county rate is at least that.

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
Cold Wave	0.0297	event-days per year	about 0.0297 days per year	Possible	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	0.529	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	3.44	event-days per year	about 3.44 days per year	Possible	event-days in 2 of 30 years, 1996 to 2025 (6.67%)	161	2000 to 2025 (25.25 years; D3 and D4 only)	countywide	NRI gives about 3.44 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 2 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	0.0395	annual probability at a location	chance a given location in the county has at least minor-damage shaking in a year: 3.95%			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	0.0268	events per year	about 1 in 37 years	Possible	FEMA annualized frequency (modeled)	1.1 (modeled)	1986 to 2023 (38 years)	countywide	
Heat Wave	3.81	event-days per year	about 3.81 days per year	Likely	event-days in 4 of 30 years, 1996 to 2025 (13.3%)	47.2	2005-11-12 to 2024-11-12 (19 years)	countywide	NRI gives about 3.81 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 4 of 30 years. NRI counts from a different source that records far more events than Storm Events, so this descriptor reads much lower than NRI's frequency; read the two together.
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	0.643	event-days per year	about 0.643 days per year	Likely	event-days in 5 of 30 years, 1996 to 2025 (16.7%)	44	1946-12-31 to 2014-02-12 (67 years)	countywide	
Inland Flooding	0.107	event-days per year	about 0.107 days per year	Likely	event-days in 6 of 30 years, 1996 to 2025 (20%)	3	1996 to 2023 (28 years)	see B1-f	
Landslide	3.36	events per year (modeled)	about 3.36 per year	Highly likely	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	

Hazard	FEMA annualized frequency (modeled) <i>unit per row</i>	Unit	In plain terms	Descriptor	Descriptor basis	NRI events or days in its record period (hail, wind and tornado are area-weighted, so can be fractional)	NRI period	Location	Note
Lightning	9.31	days per year with a strike	about 9.31 days per year	Highly likely	FEMA annualized frequency (modeled)	not shown	1995 to 2023 (29 years; CONUS)	countywide	
Strong Wind	0.0128	events per year	about 1 in 78 years	Possible	FEMA annualized frequency (modeled)	1	1986 to 2023 (38 years)	countywide	
Tornado	0.0732	events per year	about 1 in 14 years	Possible	FEMA annualized frequency (modeled)	not shown	1950 to 2023 (EF2+); 1986 to 2023 (EF0-1)	see B1-f	
Tsunami	0.0553	annual probability at the most exposed location (used in place of a county value)	chance at the county's most exposed location in a year: 5.53%		Storm Events records in 0 of 30 years, 1996 to 2025 (0%)	not shown	modeled	see B1-f	No Storm Events record of this hazard, 1996 to 2025; descriptor not assigned (the NRI value is the chance at a location in the county, not how often the hazard affects the county)
Volcanic Activity	0.0124	annual probability	about 1 in 81 years	Possible	FEMA annualized frequency (modeled)	not shown	modeled	see B1-f	
Wildfire	0.000132	annual probability at a location	chance a given location in the county burns in a year: 0.0132%	Possible	Storm Events records in 1 of 30 years, 1996 to 2025 (3.33%)	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.
Winter Weather	27	event-days per year	about 27 days per year	Likely	event-days in 20 of 30 years, 1996 to 2025 (66.7%)	485	2005-11-12 to 2024-11-12 (19 years)	countywide	

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	0	30	0
Hail	2.00 in+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	50-64 kt	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	65 kt+	1996 to 2025	0	30	0
Strong Wind (Thunderstorm Wind records)	unmeasured or below 50 kt	1996 to 2025	1	30	0.0333
Tornado	EF0-1	1996 to 2025	7	30	0.233
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 rated of all	Risk score min NRI score, 0 to 100	Median	Max	Tracts by rating	Note
Avalanche	8 of 193	95.9	96.4	98.1	Very High 2, Relatively High 6, Not Applicable 185	
Coastal Flooding	27 of 193	69.7	90.8	98.0	Relatively High 4, Relatively Moderate 12, Relatively Low 6, Very Low 5, No Rating 166	
Cold Wave	30 of 193	15.7	89.7	94.8	Relatively High 22, Relatively Moderate 5, Relatively Low 1, Very Low 2, No Rating 163	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	15 of 193	66.8	67.3	68.5	Very Low 15, No Rating 178	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	193 of 193	79.2	91.2	100.0	Very High 29, Relatively High 117, Relatively Moderate 47	
Hail	193 of 193	1.6	8.2	27.6	Very Low 193	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Heat Wave	193 of 193	27.3	65.7	83.8	Relatively Moderate 151, Relatively Low 42	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 193				Not Applicable 193	
Ice Storm	193 of 193	11.7	39.9	63.8	Relatively Low 144, Very Low 49	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	193 of 193	0.9	34.5	99.4	Very High 4, Relatively High 15, Relatively Moderate 38, Relatively Low 103, Very Low 33	
Landslide	193 of 193	10.7	51.7	99.8	Relatively High 1, Relatively Moderate 1, Relatively Low 24, Very Low 167	
Lightning	193 of 193	13.2	35.4	56.0	Relatively Moderate 12, Relatively Low 178, Very Low 3	National data give a county-wide or coarse (49 km grid or NWS zone) frequency for this hazard, so they cannot show members' hazard differing. The tract range above mostly reflects where buildings and people are. Confirm locally.
Strong Wind	193 of 193	6.3	14.5	42.3	Relatively Low 22, Very Low 171	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	193 of 193	3.8	12.9	23.9	Very Low 193	
Tsunami	22 of 193	14.2	53.5	81.5	Relatively Moderate 2, Relatively Low 11, Very Low 9, No Rating 11, Not Applicable 160	

Hazard	Tracts <i>rated of all</i>	Risk score min <i>NRI score, 0 to 100</i>	Median	Max	Tracts by rating	Note
Volcanic Activity	193 of 193	80.0	91.9	99.8	Very High 1, Relatively High 18, Relatively Moderate 14, Relatively Low 109, Very Low 51	
Wildfire	180 of 193	19.7	52.6	96.3	Relatively High 1, Relatively Moderate 1, Relatively Low 12, Very Low 166, No Rating 13	
Winter Weather	193 of 193	22.9	38.5	62.9	Relatively Moderate 21, Relatively Low 172	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 <i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i>	Public Assistance matched <i>federal share obligated, nominal dollars</i>	Event records naming this place <i>all years; since the member's plan</i>	Notes
Pierce County	County	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	FMA RL 8, SRL 24; any 67	\$44,612,625.24	0; no approved plan	Includes \$37,462,430.62 for declarations not counted as hazard incidents (DR-4481-WA).
Bonney Lake city	City	Approved, expires 2031-08-17	FMA RL 0, SRL 0; any 1	\$183,348.51	3; not yet covered	
Orting city	City	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 0	\$67,439.35	1; no approved plan	
Puyallup city	City	Approved, expires 2031-08-17	FMA RL 0, SRL 1; any 6	\$866,367.45	1; not yet covered	Includes \$89,593.66 for declarations not counted as hazard incidents (DR-4481-WA).
University Place city	City	Plan 111539 approved 2026-08-18, pending adoption here; not yet eligible	FMA RL 0, SRL 0; any 1	\$110,697.48	0; no approved plan	

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)

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.

Plan 111539 was approved by FEMA on 2026-08-18 but is not yet adopted here, so no since-plan counts are given.

- 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 <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 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	\$29,659,953		10	\$2,802		\$8,587,698	0.00945%				
Coastal Flooding	\$7,641,352,023		25,660	\$1,400,230		\$93,996	0.0183%				
Cold Wave	\$21,176,178,592	\$35,929,937	117,288	\$1,344	\$2,939	\$9,597,749	under 0.0001%				
Drought		\$17,473,827			\$11		under 0.0001% (agriculture)				NRI has no building exposure for this hazard; agriculture shown
Earthquake	\$313,067,404,371		921,130	\$236,708,683		\$127,114,792	0.0756%				
Hail	\$180,400,904,806	\$83,529,878	920,483	\$58,831	\$394	\$11,504	under 0.0001%				
Heat Wave	\$180,400,904,806	\$83,529,878	920,483	\$3,573	\$12,386	\$13,488,989	under 0.0001%				
Hurricane											Not Applicable in NRI for this county
Ice Storm	\$178,829,033,189		911,886	\$170,115		\$556,989	under 0.0001%				
Inland Flooding	\$180,046,879,965	\$10,277,347	11,903	\$121,572,782	\$1,953	\$6,432	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. EAL as % of exposure: n/a.
Landslide	\$5,806,499,091		26,138	\$345,919		\$19,767	0.00596%				

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 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
Lightning	\$180,400,904,806		920,483	\$63,803		\$1,419,729	under 0.0001%				
Strong Wind	\$180,400,904,806	\$83,529,878	920,483	\$469,724	\$1	\$74,328	0.00026%				
Tornado	\$180,400,904,806	\$83,529,878	920,483	\$194,558	\$103	\$943,501	0.000108%				
Tsunami	\$17,624,956,944		2,751	\$264,009		\$1,156,870	0.0015%				
Volcanic Activity	\$180,400,904,806		920,483	\$2,997,864		\$3,795,164	0.00166%				
Wildfire	\$18,552,659,910	\$12,987,482	100,594	\$378,189	\$2	\$7,371	0.00204%				
Winter Weather	\$180,400,904,806	\$83,529,878	920,483	\$13,335	\$456	\$317,792	under 0.0001%				

Totals since the plan: not available. Plan 111539 was approved by FEMA on 2026-08-18 but is not yet adopted here, so no since-plan counts are given.

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	920,483
Building value (total, not at risk)	\$180,400,904,806
Agriculture value (total, not at risk)	\$83,529,878
NRI risk rating (all hazards)	Relatively High
Expected annual loss, buildings and agriculture, all hazards	\$364,664,008
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)	\$167,192,672

Measure	Value
Social vulnerability rating	Very Low
Community resilience rating	Relatively High
NRI version	December 2025

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

SOURCE
FEMA, FEMA National Risk Index 1.20.0 (December 2025), county and census tract tables, version 1.20.0, pulled 2026-09-28, https://www.fema.gov/about/reports-and-data/openfema/nri/v120/NRI_Table_Counties.zip (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)	14	Severe repetitive loss, FMA definition (44 CFR 77.2)	33
Repetitive loss, NFIP insurance definition	97	Severe repetitive loss, NFIP insurance definition	9

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	14	33	97	9	126	27	35
PIERCE COUNTY*	8	24	45	5	67	21	13
FIRCREST, CITY OF (community ID not in plan data)	0	0	2	0	2	0	1
PUYALLUP, CITY OF	0	1	5	1	6	0	1
SOUTH PRAIRIE, TOWN OF (community ID not in plan data)	0	1	4	1	4	0	2
SUMNER,CITY OF (community ID not in plan data)	6	4	36	2	39	3	18
TACOMA, CITY OF (community ID not in plan data)	0	3	1	0	4	3	0
BONNEY LAKE, CITY OF	0	0	1	0	1	0	0
MILTON, CITY OF (community ID not in plan data)	0	0	1	0	1	0	0
UNIVERSITY PLACE, CITY OF	0	0	1	0	1	0	0
LAKEWOOD, CITY OF (community ID not in plan data)	0	0	1	0	1	0	0
State level, not in this county: county not reported	0	0	2	0	2	0	0

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

Repeat-flood properties by plan member (NFIP community)

Member	NFIP community ID	RL, FMA <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
Pierce County	530138	8	24	45	5	67	21	13	
Bonney Lake city	530274	0	0	1	0	1	0	0	
Orting city	530143	0	0	0	0	0	0	0	
Puyallup city	530144	0	1	5	1	6	0	1	
University Place city	530332	0	0	1	0	1	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.

SOURCES

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

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

County repeat-flood properties by occupancy group

Occupancy group	RL, FMA <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	13	30	81	8	108	26	34
2 to 4 unit residential	0	0	1	0	1	0	1
other residential	0	1	12	0	13	1	0
non-residential	1	2	3	1	4	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.

SOURCES

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

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

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

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

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

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

In this county 7 properties are FMA repetitive loss but not NFIP repetitive loss, and 90 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_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
-

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).

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.

Reuse, citation and corrections

Reuse and citation: Hazard Plain text and tables are licensed under Creative Commons Attribution 4.0 International (CC BY 4.0, <https://creativecommons.org/licenses/by/4.0/>); credit Hazard Plain and the release. The underlying federal data are public domain; OpenFEMA data are also subject to the OpenFEMA terms and conditions.

Cite this: Hazard Plain (2026). Pierce County, WA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-28; County area 53053). Preview: automated baseline. Built from FEMA OpenFEMA, the FEMA National Risk Index and NOAA NCEI Storm Events; source versions in the packet's Sources list.

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_53053. Preview: automated baseline.