

# King County, WA

## Risk-assessment baseline packet

Unit **County area 53033**    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   | Approved, expires 2030-08-03 | Plan    | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) |
| Approved | 2025-08-04                   | Expires | 2030-08-03                                                                        |
| As of    | 2026-09-28                   | Days    | 1,405 days to expiry                                                              |

### What changed since your last plan (approved 2025-08-04)

|                          |                                                                 |                                     |                                             |
|--------------------------|-----------------------------------------------------------------|-------------------------------------|---------------------------------------------|
| New federal declarations | EM-3629-WA, DR-4906-WA (2 declaration rows; 1 counted incident) | Storm Events records since approval | 1 (data through 2026-06-30)                 |
| Repetitive loss now      | FMA RL 61, SRL 100 (44 CFR 77.2); any definition: 412           | 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: 31 rows, in the section "Plan clock: Plan status for every jurisdiction listed in this county" after these cover pages.**

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

## CONTENTS

1. Plan clock, page 1
2. What changed since your last plan (approved 2025-08-04), page 1
3. Supports B1-a: hazards, page 3
4. Supports B1-b: location, page 5
5. Supports B1-c: extent, page 6
6. Supports B1-d: previous occurrences, page 9
7. Supports B1-e: probability, page 15
8. Supports B1-f: variation across the planning area, page 18
9. Supports B2-a and B2-b: assets and impacts, page 21
10. Supports B2-a: context, page 23
11. Supports B2-c: repetitive loss, page 23
12. Sources and OpenFEMA disclaimer, page 26

## Plan clock

### Plan status for every jurisdiction listed in this county

| Jurisdiction       | Type   | Status                       | Plan                                                                                                   | Approved   | Expires    | Days to expiry<br><i>negative = days since expiry</i> | Update underway                       | Notes |
|--------------------|--------|------------------------------|--------------------------------------------------------------------------------------------------------|------------|------------|-------------------------------------------------------|---------------------------------------|-------|
| King County        | County | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Algona city        | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Bellevue city      | City   | Approved, expires 2030-11-18 | 2025 City of Bellevue Hazard Mitigation Plan and Community Wildfire Protection Plan (FEMA plan 111339) | 2025-11-19 | 2030-11-18 | 1,512                                                 |                                       |       |
| Bothell city       | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Carnation city     | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Duvall city        | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Issaquah city      | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Kenmore city       | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Kent city          | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Kirkland city      | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Maple Valley city  | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Mercer Island city | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Redmond city       | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Renton city        | City   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578)                      | 2025-08-04 | 2030-08-03 | 1,405                                                 |                                       |       |
| Seattle city       | City   | Approved, expires 2027-01-20 | Seattle City HMP (FEMA plan 107942)                                                                    | 2022-01-21 | 2027-01-20 | 114                                                   | FEMA tracker shows a plan in progress |       |

| Jurisdiction                                 | Type                   | Status                       | Plan                                                                              | Approved   | Expires    | Days to expiry<br><i>negative = days since expiry</i> | Update underway | Notes |
|----------------------------------------------|------------------------|------------------------------|-----------------------------------------------------------------------------------|------------|------------|-------------------------------------------------------|-----------------|-------|
| Shoreline city                               | City                   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Tukwila city                                 | City                   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Woodinville city                             | City                   | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Riverview School District                    | School/School District | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Covington Water District                     | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| King County Water District No. 125           | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| King County Water District No. 20            | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| King County Water District No. 90            | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Lake Meridian Water District                 | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Midway Sewer District Annex                  | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| North City Water District                    | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Northeast Sammamish Sewer and Water District | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Other (Cedar River Water and Sewer District) | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Other (Soos Creek Water District)            | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Other (South King Fire and Rescue)           | Fire/EMS District      | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |
| Sammamish Plateau Water & Sewer District     | Water/Sewer Authority  | Approved, expires 2030-08-03 | King County Multi-Jurisdictional Hazard Mitigation Plan (2025) (FEMA plan 110578) | 2025-08-04 | 2030-08-03 | 1,405                                                 |                 |       |

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

## 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<br>by<br>EAL | Hazard            | NRI risk<br>rating  | EAL rating          | EAL buildings<br><i>modeled dollars<br/>per year</i> | EAL agriculture<br><i>modeled<br/>dollars per<br/>year</i> | EAL population<br>equivalence<br><i>statistical value of life<br/>and injury, \$13.7M per<br/>life, not property<br/>damage</i> | EAL total (see<br>note)<br><i>modeled dollars<br/>per year</i> | Storm<br>Events<br>records<br>since 1996<br><i>count</i> | Evidence for an omission<br><i>NRI Not Applicable, no declaration and no<br/>Storm Events record since 1996</i> | Storm Events coverage note                                                                                                                                     |
|-------------------|-------------------|---------------------|---------------------|------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1                 | Earthquake        | Very High           | Very High           | \$740,198,161                                        |                                                            | \$474,514,169                                                                                                                   | \$1,214,712,330                                                |                                                          |                                                                                                                 | Not in Storm Events. Storm Events coverage of this hazard is limited; absence is not evidence of low risk.                                                     |
| 2                 | Inland Flooding   | Very High           | Very High           | \$416,682,218                                        | \$72                                                       | \$192,828                                                                                                                       | \$416,875,117                                                  | 8                                                        |                                                                                                                 |                                                                                                                                                                |
| 3                 | Heat Wave         | Relatively High     | Relatively High     | \$5,114                                              | \$24,334                                                   | \$18,888,588                                                                                                                    | \$18,918,036                                                   | 28                                                       |                                                                                                                 |                                                                                                                                                                |
| 4                 | Avalanche         | Very High           | Very High           | \$11,300                                             |                                                            | \$11,067,735                                                                                                                    | \$11,079,036                                                   | 4                                                        |                                                                                                                 |                                                                                                                                                                |
| 5                 | Tsunami           | Relatively Low      | Relatively Moderate | \$662,356                                            |                                                            | \$5,604,253                                                                                                                     | \$6,266,609                                                    | 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. |
| 6                 | Tornado           | Relatively Moderate | Relatively Moderate | \$1,046,607                                          | \$743                                                      | \$2,488,285                                                                                                                     | \$3,535,635                                                    | 1                                                        |                                                                                                                 |                                                                                                                                                                |
| 7                 | Volcanic Activity | Relatively High     | Relatively High     | \$577,699                                            |                                                            | \$1,284,945                                                                                                                     | \$1,862,644                                                    | 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.                    |
| 8                 | Landslide         | Relatively High     | Relatively High     | \$878,176                                            |                                                            | \$793,339                                                                                                                       | \$1,671,514                                                    | 4                                                        |                                                                                                                 |                                                                                                                                                                |
| 9                 | Coastal Flooding  | Relatively Moderate | Relatively Moderate | \$1,366,142                                          |                                                            | \$129,523                                                                                                                       | \$1,495,665                                                    | 1                                                        |                                                                                                                 |                                                                                                                                                                |
| 10                | Ice Storm         | Relatively High     | Relatively High     | \$1,022,951                                          |                                                            | \$279,806                                                                                                                       | \$1,302,757                                                    | 6                                                        |                                                                                                                 |                                                                                                                                                                |
| 11                | Winter Weather    | Relatively High     | Relatively High     | \$251,237                                            | \$1,659                                                    | \$561,625                                                                                                                       | \$814,521                                                      | 72                                                       |                                                                                                                 |                                                                                                                                                                |
| 12                | Lightning         | Relatively Moderate | Relatively Moderate | \$67,658                                             |                                                            | \$682,748                                                                                                                       | \$750,406                                                      | 22                                                       |                                                                                                                 |                                                                                                                                                                |
| 13                | Wildfire          | Relatively Low      | Relatively Low      | \$473,450                                            | \$55                                                       | \$13,552                                                                                                                        | \$487,057                                                      | 1                                                        |                                                                                                                 |                                                                                                                                                                |
| 14                | Cold Wave         | Relatively Low      | Relatively Low      | \$4,093                                              | \$23,858                                                   | \$420,672                                                                                                                       | \$448,623                                                      | 4                                                        |                                                                                                                 |                                                                                                                                                                |

| 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                                                                                          |
|-------------|-------------|-----------------|----------------|----------------------------------------|------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
| 15          | Strong Wind | Very Low        | Very Low       | \$16,097                               | \$2                                      | \$22,413                                                                                               | \$38,512                                      | 35                                    |                                                                                                                                                                                           | Includes 18 High Wind records and 14 Strong Wind records, event types the NRI definition of this hazard leaves out. |
| 16          | Hail        | Very Low        | Very Low       | \$428                                  | \$6,436                                  | \$789                                                                                                  | \$7,653                                       | 3                                     |                                                                                                                                                                                           |                                                                                                                     |
| 17          | Drought     | Very Low        | Very Low       |                                        | \$240                                    |                                                                                                        | \$240                                         | 0                                     |                                                                                                                                                                                           | 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).                                            |

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](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](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<br>rated of all tracts |
|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|
| 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.                                                                        | 15 of 494                                  |
| Coastal Flooding | The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center ( <a href="https://msc.fema.gov">https://msc.fema.gov</a> ) for this county. | 35 of 494                                  |
| Cold Wave        | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 71 of 494                                  |
| Drought          | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 10 of 494                                  |
| 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.                                                                        | 494 of 494                                 |
| Hail             | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 494 of 494                                 |
| Heat Wave        | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 494 of 494                                 |
| 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 494                                   |
| Ice Storm        | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                                                                                           | 494 of 494                                 |
| Inland Flooding  | The FEMA Flood Insurance Rate Map (FIRM) is the required location source for flooding. See the FEMA Flood Map Service Center ( <a href="https://msc.fema.gov">https://msc.fema.gov</a> ) for this county. | 494 of 494                                 |
| 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.                                                                        | 487 of 494                                 |

| Hazard            | Location                                                                                                                           | Census tracts rated<br><i>rated of all tracts</i> |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Lightning         | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                    | 494 of 494                                        |
| Strong Wind       | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                    | 494 of 494                                        |
| 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. | 494 of 494                                        |
| 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. | 37 of 494                                         |
| 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. | 457 of 494                                        |
| 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. | 406 of 494                                        |
| Winter Weather    | Affects the whole planning area; national data do not distinguish locations within the county. Confirm locally.                    | 494 of 494                                        |

**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](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](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<br><i>count, years</i> | Observed range                                           | Worst recorded event                                     | Most damaging<br>(when different) | How it applies to members                                                                           | Note                                                                                                                                                                 |
|-------------------------------------------------|--------------------------------|--------------------------------|----------------------------------------------------------|----------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche                                       | none (count and damage)        | 4, 2016 to 2022 (4 zone-level) |                                                          | No damage reported in 4 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.                                                                                                     |
| Coastal Flood, Storm Surge/ Tide                | none in data (FIRM for depth)  | 1, 2022 to 2022 (1 zone-level) |                                                          | No damage reported in 1 records.                         |                                   | 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                     | 4, 2021 to 2024 (4 zone-level) | 1 day to 5 days (median 2 days); 3 with a recorded value | 5 consecutive days, 2024-01-12 to 2024-01-16, 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                    | 0                              |                                                          |                                                          |                                   |                                                                                                     | Temperature: in event narratives only; local data required.                                                                                                          |
| Drought                                         | US Drought Monitor D-scale     | 0                              |                                                          |                                                          |                                   |                                                                                                     | Storm Events enters a drought at D2 or worse east of the Rockies and D3 or worse from the Rockies west (NWS Instruction 10-1605); NRI drought counts D3 and D4 only. |
| Earthquake                                      | Modified Mercalli (local data) | 0                              |                                                          |                                                          |                                   |                                                                                                     | No Storm Events record; local data required (e.g., USGS).                                                                                                            |

| Hazard                                         | Scale                                                                              | Records<br><i>count, years</i>          | Observed range                                                    | Worst recorded event                                                                            | Most damaging<br>(when different) | How it applies to members                                                                                                                                                                                                                                                  | Note                                                                                                                                                                                                                                                      |
|------------------------------------------------|------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hail                                           | hail size<br>(inches)                                                              | 4, 1972 to<br>2008                      | 0.75 in to 1.5 in<br>(median 0.95 in); 4<br>with a recorded value | 1.5 in hail, 1972-06-08                                                                         |                                   | Event records naming member places: Bothell city (1 record), Redmond city (1 record).                                                                                                                                                                                      |                                                                                                                                                                                                                                                           |
| Excessive Heat, Heat                           | heat index<br>(narratives)                                                         | 28, 2016 to<br>2025 (28 zone-<br>level) | 1 day to 5 days<br>(median 1 day); 17<br>with a recorded value    | 5 consecutive days,<br>2023-05-12 to<br>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. Heat records from November to March (unseasonable warmth, not a heat wave) are counted but not used for the longest run.                                                                       |
| Hurricane, Tropical Storm, Tropical Depression | Saffir-Simpson                                                                     | 0                                       |                                                                   |                                                                                                 |                                   |                                                                                                                                                                                                                                                                            | Storm Events files every zone of a storm's episode under the storm's 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<br>(local data)                                                       | 6, 2017 to<br>2024 (6 zone-<br>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.                                                                                                                                                                                             |
| Flash Flood, Flood, Lakeshore Flood            | damage and flood days<br>(FIRM for depth)                                          | 8, 1996 to<br>2021                      |                                                                   | Flood, 2009-01-07, \$14,000,000 property; \$0 crops (2009 dollars)                              |                                   | Event records naming member places: Carnation city (2 records), Seattle city (2 records), Duvall city (1 record).                                                                                                                                                          | 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)                                                            | 4, 2013 to<br>2017                      |                                                                   | Debris Flow, 2014-03-02, \$200,000 property; \$0 crops (2014 dollars)                           |                                   | No event record names a member place.                                                                                                                                                                                                                                      | Physical measure: in event narratives only; local data required.                                                                                                                                                                                          |
| Lightning                                      | annualized frequency (the measure FEMA's Local Mitigation Planning Handbook names) | 22, 1996 to<br>2015                     |                                                                   | Lightning, 1999-08-03, \$650,000 property; crops not reported (1999 dollars), 2 direct injuries |                                   | Event records naming member places: Bellevue city (3 records), Kirkland city (2 records), Seattle city (2 records), Woodinville city (2 records), Duvall city (1 record), Issaquah city (1 record), Kent city (1 record), Redmond city (1 record), Renton city (1 record). | Storm Events lists lightning with damage or casualties; physical measure in event narratives only; local data required.                                                                                                                                   |

| Hazard                                                         | Scale                                   | Records<br><i>count, years</i>   | Observed range                                                                     | Worst recorded event                                                                                                                                                                                                                              | Most damaging<br>(when different)                                                            | How it applies to members                                                                           | Note                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------------------------------------------|-----------------------------------------|----------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High Wind and Strong Wind (outside NRI Strong Wind definition) | wind speed (kt and mph)                 | 32, 2014 to 2025 (32 zone-level) | 26 kt (30 mph) to 62 kt (71 mph) (median 45 kt (52 mph)); 32 with a recorded value | 62 kt (71 mph) measured gust, High Wind, 2025-02-25; NWS zone WAZ568 (CASCADES OF SNOHOMISH AND KING COUNTIES), zone-level: may include parts of neighboring counties                                                                             | High Wind, 2014-11-11, \$4,000,000 property; \$0 crops, reported for the zone (2014 dollars) | Zone-level records: applies countywide; national data do not locate these events within the county. |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Thunderstorm Wind                                              | wind speed (kt and mph)                 | 7, 1956 to 2013                  | 39 kt (45 mph) to 80 kt (92 mph) (median 54 kt (62 mph)); 3 with a recorded value  | 80 kt (92 mph), measurement type not recorded, Thunderstorm Wind, 1956-03-03                                                                                                                                                                      | Thunderstorm Wind, 2013-05-13, \$25,000 property; \$0 crops (2013 dollars)                   | Event records naming member places: Issaquah city (1 record), Seattle city (1 record).              |                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Tornado                                                        | Enhanced Fujita (F before Feb 2007)     | 5, 1962 to 2001                  | F/EF0 to F/EF3 (median between F/EF0 and F/EF1); 4 with a recorded value           | F3 tornado, 1969-12-12, 3.8 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 100 yd wide, \$250,000 property; crops not recorded (1969 dollars), 1 direct injury |                                                                                              | Event records naming member places: Seattle city (1 record).                                        | 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, 2017 to 2017 (1 zone-level)   |                                                                                    | Wildfire, 2017-09-04, \$4,500,000 property; \$0 crops, reported for the zone (2017 dollars); NWS zone WAZ568 (CASCADES OF SNOHOMISH AND KING COUNTIES), zone-level: may include parts of neighboring counties                                     |                                                                                              | Zone-level records: applies countywide; national data do not locate these events within the county. | Acres burned: in event narratives only; local data required.                                                                                                                                                                                                                                                                                                                                                                  |

| Hazard                                                                      | Scale                         | Records<br><i>count, years</i>   | Observed range | Worst recorded event              | Most damaging<br>(when different) | How it applies to members                                                                           | Note                                                       |
|-----------------------------------------------------------------------------|-------------------------------|----------------------------------|----------------|-----------------------------------|-----------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Winter Storm, Heavy Snow, Blizzard, Lake-Effect Snow, Winter Weather, Sleet | none in data (snowfall local) | 72, 2015 to 2025 (72 zone-level) |                | No damage reported in 72 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 rows35

Counted incidents31

Federal disaster declarations for this county

| Declared   | Incident began | FEMA number | Type            | Title                                                                          | Mapped hazard                                                      | County Public Assistance<br><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 | \$221,361.13                                                                | new since last plan; 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                                                                  | new since last plan; within last 5 years | same incident as DR-4906 |
| 2024-04-28 | 2024-01-05     | DR-4775-WA  | Major disaster  | SEVERE WINTER STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES | Inland Flooding; Landslide; Strong Wind; Winter Weather            | \$1,784,447.26                                                              | within last 5 years                      |                          |
| 2022-09-10 | 2022-09-10     | FM-5455-WA  | Fire management | BOLT CREEK FIRE                                                                | Wildfire                                                           | none found                                                                  | within last 5 years                      |                          |
| 2020-04-23 | 2020-01-20     | DR-4539-WA  | Major disaster  | SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES                             | Inland Flooding (primary); also designated: Landslide              | \$7,438,320.31                                                              |                                          |                          |
| 2020-03-22 | 2020-01-20     | DR-4481-WA  | Major disaster  | COVID-19 PANDEMIC                                                              | Non-natural, not counted                                           | \$795,894,511.61                                                            |                                          |                          |
| 2020-03-13 | 2020-01-20     | EM-3427-WA  | Emergency       | COVID-19                                                                       | Non-natural, not counted                                           | none found                                                                  |                                          | same incident as DR-4481 |

| Declared   | Incident began | FEMA number | Type           | Title                                                    | Mapped hazard                                                         | County Public Assistance                        | Flags | Notes                                                                                                                       |
|------------|----------------|-------------|----------------|----------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------|-------|-----------------------------------------------------------------------------------------------------------------------------|
|            |                |             |                |                                                          |                                                                       | <i>federal share obligated, nominal dollars</i> |       |                                                                                                                             |
| 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 | \$8,802,288.09                                  |       |                                                                                                                             |
| 2012-03-05 | 2012-01-14     | DR-4056-WA  | Major disaster | SEVERE WINTER STORM, FLOODING, LANDSLIDES, AND MUDSLIDES | Inland Flooding; Landslide; Winter Weather                            | \$8,386,088.67                                  |       |                                                                                                                             |
| 2011-03-25 | 2011-01-11     | DR-1963-WA  | Major disaster | SEVERE WINTER STORM, FLOODING, LANDSLIDES, AND MUDSLIDES | Inland Flooding; Landslide; Winter Weather                            | \$4,025,930.38                                  |       |                                                                                                                             |
| 2009-03-02 | 2008-12-12     | DR-1825-WA  | Major disaster | SEVERE WINTER STORM AND RECORD AND NEAR RECORD SNOW      | Winter Weather                                                        | \$5,706,044.54                                  |       |                                                                                                                             |
| 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 | \$11,886,058.35                                 |       |                                                                                                                             |
| 2007-12-08 | 2007-12-01     | DR-1734-WA  | Major disaster | SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES       | Inland Flooding; Landslide                                            | \$4,009,560.22                                  |       |                                                                                                                             |
| 2007-02-14 | 2006-12-14     | DR-1682-WA  | Major disaster | SEVERE WINTER STORM, LANDSLIDES, AND MUDSLIDES           | Landslide; Winter Weather                                             | \$11,807,309.07                                 |       |                                                                                                                             |
| 2006-12-12 | 2006-11-02     | DR-1671-WA  | Major disaster | SEVERE STORMS, FLOODING, LANDSLIDES, AND MUDSLIDES       | Inland Flooding; Landslide                                            | \$4,091,869.96                                  |       |                                                                                                                             |
| 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                                      |       |                                                                                                                             |
| 2003-11-07 | 2003-10-15     | DR-1499-WA  | Major disaster | SEVERE STORMS AND FLOODING                               | Inland Flooding                                                       | \$663,017.99                                    |       | FEMA's declaration record does not list Public Assistance, but FEMA's PA project summaries show obligations for this county |
| 2001-03-01 | 2001-02-28     | DR-1361-WA  | Major disaster | EARTHQUAKE                                               | Earthquake                                                            | \$28,925,269.35                                 |       |                                                                                                                             |
| 1997-04-02 | 1997-03-18     | DR-1172-WA  | Major disaster | HEAVY RAINS, SNOW MELT, FLOODING, LAND & MUD SLIDES      | Inland Flooding (primary); also designated: Landslide                 | 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                                      |       |                                                                                                                             |
| 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                                                         | none found                                      |       |       |
| 1986-02-15 | 1986-01-16     | DR-757-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                                      |       |       |
| 1979-12-31 | 1979-12-31     | DR-612-WA   | Major disaster | STORMS, HIGH TIDES, MUDSLIDES & FLOODING | Inland Flooding (primary); also designated: Coastal Flooding, Landslide | PA not declared for this county                 |       |       |
| 1977-12-10 | 1977-12-10     | DR-545-WA   | Major disaster | SEVERE STORMS,MUDSLIDES, & FLOODING      | Inland Flooding (primary); also designated: Landslide                   | none found                                      |       |       |
| 1975-12-13 | 1975-12-13     | DR-492-WA   | Major disaster | SEVERE STORMS & FLOODING                 | Inland Flooding                                                         | 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                                      |       |       |

School districts and special districts in this county: \$153,176.04 (included in the county total above). Public Assistance matched by applicant name to the school districts and special districts FEMA lists as plan members in this county. They are not shown as member blocks, so their total is listed here. These dollars are already included in the county PA column of the declarations table (the FEMA record places each applicant in this county); do not add this line to the county total.

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 |       |       |

| Declared   | Incident began | FEMA number | Type           | Title         | Mapped hazard                                                              | Flags | Notes |
|------------|----------------|-------------|----------------|---------------|----------------------------------------------------------------------------|-------|-------|
| 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: 4 rows, \$18,341,164.80

| FEMA number | Declared   | Title                                                                         | Applicant        | PA obligated<br><i>federal share obligated, nominal dollars</i> |
|-------------|------------|-------------------------------------------------------------------------------|------------------|-----------------------------------------------------------------|
| DR-4635-WA  | 2022-01-05 | SEVERE STORMS, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES       | Seattle, City of | \$16,374,256.77                                                 |
| DR-4593-WA  | 2021-04-08 | SEVERE WINTER STORM, STRAIGHT-LINE WINDS, FLOODING, LANDSLIDES, AND MUDSLIDES | Bothell, City of | \$252,572.98                                                    |
| DR-4243-WA  | 2015-10-20 | WILDFIRES AND MUDSLIDES                                                       | Seattle, City of | \$1,688,287.80                                                  |
| DR-4168-WA  | 2014-04-02 | FLOODING AND MUDSLIDES                                                        | Seattle, City of | \$26,047.25                                                     |

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<br><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<br><i>full period</i> | Since plan approval records | During plan review records | Last 5 years records | Declared incidents<br><i>distinct incidents</i> | Declared since approval<br><i>distinct incidents</i> | Period             | Statement |
|------------------|--------------------------------------------|-----------------------------|----------------------------|----------------------|-------------------------------------------------|------------------------------------------------------|--------------------|-----------|
| Avalanche        | 4                                          | 0                           | 0                          | 1                    | 0                                               | 0                                                    | 1996 to 2026-06-30 |           |
| Coastal Flooding | 1                                          | 0                           | 0                          | 1                    | 2                                               | 0                                                    | 1996 to 2026-06-30 |           |

| <b>Hazard</b>     | <b>Storm Events<br/>records</b><br><i>full period</i> | <b>Since plan<br/>approval</b><br><i>records</i> | <b>During plan<br/>review</b><br><i>records</i> | <b>Last 5<br/>years</b><br><i>records</i> | <b>Declared<br/>incidents</b><br><i>distinct incidents</i> | <b>Declared since<br/>approval</b><br><i>distinct incidents</i> | <b>Period</b>      | <b>Statement</b>                                                                                                    |
|-------------------|-------------------------------------------------------|--------------------------------------------------|-------------------------------------------------|-------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------|
| Cold Wave         | 4                                                     | 0                                                | 0                                               | 4                                         | 0                                                          | 0                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Drought           | 0                                                     | 0                                                | 0                                               | 0                                         | 0                                                          | 0                                                               | 1996 to 2026-06-30 | No recorded events, 1996 to 2026-06-30, NOAA NCEI Storm Events                                                      |
| Earthquake        | 0                                                     | 0                                                | 0                                               | 0                                         | 2                                                          | 0                                                               |                    | No Storm Events record; local data required (e.g., USGS).                                                           |
| Hail              | 4                                                     | 0                                                | 0                                               | 0                                         | 0                                                          | 0                                                               | 1955 to 2026-06-30 |                                                                                                                     |
| Heat Wave         | 28                                                    | 1                                                | 1                                               | 23                                        | 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                                               | 4                                         | 0                                                          | 0                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Inland Flooding   | 8                                                     | 0                                                | 0                                               | 0                                         | 24                                                         | 1                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Landslide         | 4                                                     | 0                                                | 0                                               | 0                                         | 14                                                         | 1                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Lightning         | 22                                                    | 0                                                | 0                                               | 0                                         | 0                                                          | 0                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Strong Wind       | 39                                                    | 0                                                | 3                                               | 7                                         | 5                                                          | 1                                                               | 1955 to 2026-06-30 | Includes 18 High Wind records and 14 Strong Wind records, event types the NRI definition of this hazard leaves out. |
| Tornado           | 5                                                     | 0                                                | 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          | 1                                                     | 0                                                | 0                                               | 0                                         | 1                                                          | 0                                                               | 1996 to 2026-06-30 |                                                                                                                     |
| Winter Weather    | 72                                                    | 0                                                | 4                                               | 30                                        | 8                                                          | 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<br><i>nominal dollars</i>                                      | Direct<br>deaths,<br>injuries<br><i>indirect not<br/>counted</i> | Location                                                                                                         | Flags                                                                             | Why listed                                                                          |
|------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| 2025-02-25 | High Wind         | 62 kt (71 mph) measured gust                                                                                                                          | \$0 property; \$0 crops, reported for the zone (2025 dollars)         | 0, 0                                                             | NWS zone WAZ568 (CASCADES OF SNOHOMISH AND KING COUNTIES), zone-level: may include parts of neighboring counties | during plan review, check whether your last plan included it; within last 5 years | B1-c worst recorded: High Wind and Strong Wind (outside NRI Strong Wind definition) |
| 2024-01-12 | Cold/Wind Chill   |                                                                                                                                                       | \$0 property; \$0 crops, reported for the zone (2024 dollars)         | 0, 0                                                             | NWS zone WAZ558 (SEATTLE AND VICINITY), zone-level: may include parts of neighboring counties                    | within last 5 years                                                               | B1-c worst recorded: Cold/Wind Chill, Extreme Cold/Wind Chill                       |
| 2023-05-12 | Heat              |                                                                                                                                                       | \$0 property; \$0 crops, reported for the zone (2023 dollars)         | 0, 0                                                             | NWS zone WAZ558 (SEATTLE AND VICINITY), zone-level: may include parts of neighboring counties                    | within last 5 years                                                               | B1-c worst recorded: Excessive Heat, Heat                                           |
| 2021-10-24 | High Wind         | 52 kt (60 mph) estimated gust                                                                                                                         | damage not reported                                                   | 2, 0                                                             | NWS zone WAZ568 (CASCADES OF SNOHOMISH AND KING COUNTIES), zone-level: may include parts of neighboring counties | within last 5 years                                                               | deaths or injuries recorded                                                         |
| 2017-11-13 | High Wind         | 37 kt (43 mph) measured sustained                                                                                                                     | \$2,000,000 property; \$0 crops, reported for the zone (2017 dollars) | 1, 1                                                             | NWS zone WAZ555 (EAST PUGET SOUND LOWLANDS), zone-level: may include parts of neighboring counties               |                                                                                   | deaths or injuries recorded                                                         |
| 2017-09-04 | Wildfire          |                                                                                                                                                       | \$4,500,000 property; \$0 crops, reported for the zone (2017 dollars) | 0, 0                                                             | NWS zone WAZ568 (CASCADES OF SNOHOMISH AND KING COUNTIES), zone-level: may include parts of neighboring counties |                                                                                   | B1-c worst recorded: Wildfire                                                       |
| 2016-03-13 | High Wind         | 38 kt (44 mph) measured sustained                                                                                                                     | \$350,000 property; \$0 crops, reported for the zone (2016 dollars)   | 1, 1                                                             | NWS zone WAZ558 (SEATTLE AND VICINITY), zone-level: may include parts of neighboring counties                    |                                                                                   | deaths or injuries recorded                                                         |
| 2014-03-02 | Debris Flow       |                                                                                                                                                       | \$200,000 property; \$0 crops (2014 dollars)                          | 0, 0                                                             | PACIFIC                                                                                                          |                                                                                   | B1-c worst recorded: Debris Flow                                                    |
| 2009-01-07 | Flood             |                                                                                                                                                       | \$14,000,000 property; \$0 crops (2009 dollars)                       | 0, 0                                                             | SNOQUALMIE to NORTH BEND                                                                                         |                                                                                   | B1-c worst recorded: Flash Flood, Flood, Lakeshore Flood                            |
| 1999-08-03 | Lightning         |                                                                                                                                                       | \$650,000 property; crops not reported (1999 dollars)                 | 0, 2                                                             | COUNTYWIDE                                                                                                       |                                                                                   | B1-c worst recorded: Lightning                                                      |
| 1969-12-12 | Tornado           | F3, 3.8 mi path length (records before 1996 may include the whole path; rating and listing come from the county where the tornado began), 100 yd wide | \$250,000 property; crops not recorded (1969 dollars)                 | 0, 1                                                             | location not recorded                                                                                            |                                                                                   | B1-c worst recorded: Tornado                                                        |
| 1956-03-03 | Thunderstorm Wind | 80 kt (92 mph), measurement type not recorded                                                                                                         | damage not recorded (pre-1996 record)                                 | 0, 0                                                             | location not recorded                                                                                            |                                                                                   | B1-c worst recorded: Thunderstorm Wind                                              |

The full list is in the **XLSX** file, sheet "**B1-d Storm Events history**" (198 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<br>annualized<br>frequency<br>(modeled)<br><i>unit per row</i> | Unit                                          | In plain terms                                                                                          | Descriptor       | Descriptor<br>basis                                      | NRI events or days in<br>its record period (hail,<br>wind and tornado are<br>area-weighted, so can<br>be fractional) | NRI period                                          | Location   | Note                                                                                                                                                                                  |
|---------------------|---------------------------------------------------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------|------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche           | 1.07                                                                | events per year                               | about 1.07 per<br>year                                                                                  | Highly<br>likely | FEMA<br>annualized<br>frequency<br>(modeled)             | 32                                                                                                                   | 1994 to 2023<br>(30 years)                          | see B1-f   |                                                                                                                                                                                       |
| Coastal<br>Flooding | 3.18                                                                | events per year at<br>a location<br>(modeled) | about 3.2 per year<br>at a given location<br>in the county                                              | Highly<br>likely | FEMA<br>annualized<br>frequency<br>(modeled)             | not shown                                                                                                            | modeled                                             | see B1-f   | Descriptor from NRI: the rate at a location is 1 or<br>more a year, so the county rate is at least that.                                                                              |
| Cold Wave           | 0.0454                                                              | event-days per<br>year                        | about 0.0454 days<br>per year                                                                           | Likely           | event-days in 3<br>of 30 years,<br>1996 to 2025<br>(10%) | 0.804                                                                                                                | 2005-11-12 to<br>2024-11-12 (19<br>years)           | countywide | Frost/Freeze records are not counted in this<br>descriptor: they record crop freezes, not cold<br>waves.                                                                              |
| Drought             | 3.99                                                                | event-days per<br>year                        | about 3.99 days<br>per year                                                                             |                  | event-days in 0<br>of 30 years,<br>1996 to 2025<br>(0%)  | 161                                                                                                                  | 2000 to 2025<br>(25.25 years;<br>D3 and D4<br>only) | countywide | No recorded event-days, 1996 to 2025; descriptor<br>not assigned                                                                                                                      |
| Earthquake          | 0.0486                                                              | annual probability<br>at a location           | chance a given<br>location in the<br>county has at least<br>minor-damage<br>shaking in a year:<br>4.86% |                  |                                                          | not shown                                                                                                            | modeled                                             | see B1-f   | Descriptor not assigned: the NRI value is the chance<br>at a location in the county, not how often the hazard<br>affects the county, and Storm Events does not<br>record earthquakes. |
| Hail                | 0.0335                                                              | events per year                               | about 1 in 30 years                                                                                     | Possible         | FEMA<br>annualized<br>frequency<br>(modeled)             | 1.3 (modeled)                                                                                                        | 1986 to 2023<br>(38 years)                          | countywide |                                                                                                                                                                                       |

| Hazard               | FEMA<br>annualized<br>frequency<br>(modeled)<br><i>unit per row</i> | Unit                                                                                          | In plain terms                                                         | Descriptor       | Descriptor<br>basis                                               | NRI events or days in<br>its record period (hail,<br>wind and tornado are<br>area-weighted, so can<br>be fractional) | NRI period                                               | Location   | Note                                                                                                                                                                                                                                                                                                                                                                                 |
|----------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Heat Wave            | 3.81                                                                | event-days per<br>year                                                                        | about 3.81 days<br>per year                                            | Likely           | event-days in 6<br>of 30 years,<br>1996 to 2025<br>(20%)          | 48.1                                                                                                                 | 2005-11-12 to<br>2024-11-12 (19<br>years)                | countywide | NRI gives about 3.81 heat wave event-days a year<br>here (its annualized frequency over 19 years; not its<br>event count divided by the years), but Storm Events<br>has a record in only 6 of 30 years. NRI counts from a<br>different source that records far more events than<br>Storm Events, so this descriptor reads much lower<br>than NRI's frequency; read the two together. |
| Hurricane            |                                                                     | events per year                                                                               |                                                                        |                  |                                                                   |                                                                                                                      | 1851 to 2024<br>(Atlantic); 1949<br>to 2024<br>(Pacific) | see B1-f   | Not Applicable in NRI for this county; no descriptor.                                                                                                                                                                                                                                                                                                                                |
| Ice Storm            | 0.765                                                               | event-days per<br>year                                                                        | about 0.765 days<br>per year                                           | Likely           | event-days in 3<br>of 30 years,<br>1996 to 2025<br>(10%)          | 50                                                                                                                   | 1946-12-31 to<br>2014-02-12 (67<br>years)                | countywide |                                                                                                                                                                                                                                                                                                                                                                                      |
| Inland<br>Flooding   | 0.286                                                               | event-days per<br>year                                                                        | about 0.286 days<br>per year                                           | Likely           | event-days in 7<br>of 30 years,<br>1996 to 2025<br>(23.3%)        | 8                                                                                                                    | 1996 to 2023<br>(28 years)                               | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                                      |
| Landslide            | 4.28                                                                | events per year<br>(modeled)                                                                  | about 4.28 per<br>year                                                 | Highly<br>likely | FEMA<br>annualized<br>frequency<br>(modeled)                      | not shown                                                                                                            | modeled                                                  | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                                      |
| Lightning            | 9.87                                                                | days per year with<br>a strike                                                                | about 9.87 days<br>per year                                            | Highly<br>likely | FEMA<br>annualized<br>frequency<br>(modeled)                      | not shown                                                                                                            | 1995 to 2023<br>(29 years;<br>CONUS)                     | countywide |                                                                                                                                                                                                                                                                                                                                                                                      |
| Strong<br>Wind       | 0.0141                                                              | events per year                                                                               | about 1 in 71 years                                                    | Possible         | FEMA<br>annualized<br>frequency<br>(modeled)                      | 1                                                                                                                    | 1986 to 2023<br>(38 years)                               | countywide |                                                                                                                                                                                                                                                                                                                                                                                      |
| Tornado              | 0.0747                                                              | events per year                                                                               | about 1 in 13 years                                                    | Possible         | FEMA<br>annualized<br>frequency<br>(modeled)                      | not shown                                                                                                            | 1950 to 2023<br>(EF2+); 1986 to<br>2023 (EF0-1)          | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                                      |
| Tsunami              | 0.0553                                                              | annual probability<br>at the most<br>exposed location<br>(used in place of a<br>county value) | chance at the<br>county's most<br>exposed location<br>in a year: 5.53% |                  | Storm Events<br>records in 0 of<br>30 years, 1996<br>to 2025 (0%) | not shown                                                                                                            | modeled                                                  | see B1-f   | No Storm Events record of this hazard, 1996 to<br>2025; descriptor not assigned (the NRI value is the<br>chance at a location in the county, not how often the<br>hazard affects the county)                                                                                                                                                                                         |
| Volcanic<br>Activity | 0.0124                                                              | annual probability                                                                            | about 1 in 81 years                                                    | Possible         | FEMA<br>annualized<br>frequency<br>(modeled)                      | not shown                                                                                                            | modeled                                                  | see B1-f   |                                                                                                                                                                                                                                                                                                                                                                                      |

| Hazard            | FEMA<br>annualized<br>frequency<br>(modeled)<br><i>unit per row</i> | Unit                                | In plain terms                                                           | Descriptor | Descriptor<br>basis                                                  | NRI events or days in<br>its record period (hail,<br>wind and tornado are<br>area-weighted, so can<br>be fractional) | NRI period                                | Location   | Note                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|---------------------------------------------------------------------|-------------------------------------|--------------------------------------------------------------------------|------------|----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Wildfire          | 0.0000726                                                           | annual probability<br>at a location | chance a given<br>location in the<br>county burns in a<br>year: 0.00726% | Possible   | Storm Events<br>records in 1 of<br>30 years, 1996<br>to 2025 (3.33%) | not shown                                                                                                            | modeled                                   | see B1-f   | Descriptor from Storm Events, not NRI: the NRI<br>value is the chance at a location in the county, not<br>how often the hazard affects the county.                                                                                                                                                                                                                                            |
| Winter<br>Weather | 26.9                                                                | event-days per<br>year              | about 26.9 days<br>per year                                              | Likely     | event-days in 11<br>of 30 years,<br>1996 to 2025<br>(36.7%)          | 478                                                                                                                  | 2005-11-12 to<br>2024-11-12 (19<br>years) | countywide | NRI gives about 26.9 winter weather event-days a<br>year here (its annualized frequency over 19 years;<br>not its event count divided by the years), but Storm<br>Events has a record in only 11 of 30 years. NRI<br>counts from a different source that records far more<br>events than Storm Events, so this descriptor reads<br>much lower than NRI's frequency; read the two<br>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](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](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 |

| Unit                  | Descriptor    | Definition                                         |
|-----------------------|---------------|----------------------------------------------------|
| 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](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](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<br><i>county-coded records</i> | Years in period | Events per year<br><i>events / years</i> |
|-----------------------------------------|---------------------------|--------------|---------------------------------------|-----------------|------------------------------------------|
| Hail                                    | 1.00-1.99 in              | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| Hail                                    | 2.00 in+                  | 1996 to 2025 | 0                                     | 30              | 0                                        |
| Strong Wind (Thunderstorm Wind records) | 50-64 kt                  | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| 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 | 2                                     | 30              | 0.0667                                   |
| Tornado                                 | EF0-1                     | 1996 to 2025 | 1                                     | 30              | 0.0333                                   |
| 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<br><i>rated of all</i> | Risk<br>score<br>min<br><i>NRI score,<br/>0 to 100</i> | Median | Max  | Tracts by rating                                                                        | Note                                                                                                                                                                                                                                 |
|------------------|-------------------------------|--------------------------------------------------------|--------|------|-----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Avalanche        | 15 of 494                     | 96.5                                                   | 96.7   | 99.5 | Very High 5, Relatively High 10, Not Applicable 479                                     |                                                                                                                                                                                                                                      |
| Coastal Flooding | 35 of 494                     | 69.8                                                   | 90.3   | 95.9 | Relatively High 3, Relatively Moderate 15, Relatively Low 11, Very Low 6, No Rating 459 |                                                                                                                                                                                                                                      |
| Cold Wave        | 71 of 494                     | 15.5                                                   | 20.4   | 26.3 | Relatively Low 48, Very Low 23, No Rating 423                                           | 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. |

| Hazard            | Tracts<br><i>rated of all</i> | Risk<br>score<br>min<br><i>NRI score,<br/>0 to 100</i> | Median | Max   | Tracts by rating                                                                                         | Note                                                                                                                                                                                                                                                                                                                                                           |
|-------------------|-------------------------------|--------------------------------------------------------|--------|-------|----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Drought           | 10 of 494                     | 67.0                                                   | 69.0   | 71.6  | Very Low 10, No Rating 484                                                                               | 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        | 494 of 494                    | 81.8                                                   | 93.7   | 100.0 | Very High 95, Relatively High 329, Relatively Moderate 70                                                |                                                                                                                                                                                                                                                                                                                                                                |
| Hail              | 494 of 494                    | 0.2                                                    | 0.5    | 22.4  | Very Low 494                                                                                             | 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 84% 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. |
| Heat Wave         | 494 of 494                    | 10.8                                                   | 42.7   | 72.9  | Relatively Moderate 74, Relatively Low 415, Very Low 5                                                   | 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 494                      |                                                        |        |       | Not Applicable 494                                                                                       |                                                                                                                                                                                                                                                                                                                                                                |
| Ice Storm         | 494 of 494                    | 9.4                                                    | 26.8   | 86.3  | Relatively Moderate 5, Relatively Low 106, Very Low 383                                                  | 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   | 494 of 494                    | 1.3                                                    | 40.6   | 100.0 | Very High 21, Relatively High 40, Relatively Moderate 138, Relatively Low 219, Very Low 76               |                                                                                                                                                                                                                                                                                                                                                                |
| Landslide         | 487 of 494                    | 13.8                                                   | 73.8   | 99.9  | Very High 1, Relatively High 2, Relatively Moderate 14, Relatively Low 168, Very Low 302, No Rating 7    |                                                                                                                                                                                                                                                                                                                                                                |
| Lightning         | 494 of 494                    | 1.4                                                    | 7.6    | 22.1  | Relatively Low 1, Very Low 493                                                                           | 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       | 494 of 494                    | 0.3                                                    | 0.8    | 5.3   | Very Low 494                                                                                             | 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           | 494 of 494                    | 4.9                                                    | 14.1   | 37.4  | Relatively Low 2, Very Low 492                                                                           |                                                                                                                                                                                                                                                                                                                                                                |
| Tsunami           | 37 of 494                     | 16.4                                                   | 60.7   | 95.6  | Relatively High 1, Relatively Moderate 6, Relatively Low 21, Very Low 9, No Rating 8, Not Applicable 449 |                                                                                                                                                                                                                                                                                                                                                                |
| Volcanic Activity | 457 of 494                    | 41.0                                                   | 88.5   | 99.7  | Relatively High 5, Relatively Moderate 4, Relatively Low 255, Very Low 193, No Rating 37                 |                                                                                                                                                                                                                                                                                                                                                                |
| Wildfire          | 406 of 494                    | 18.4                                                   | 51.0   | 95.1  | Relatively Moderate 4, Relatively Low 21, Very Low 381, No Rating 88                                     |                                                                                                                                                                                                                                                                                                                                                                |
| Winter Weather    | 494 of 494                    | 22.8                                                   | 35.9   | 71.7  | Relatively Moderate 35, Relatively Low 459                                                               | 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](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](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<br><i>FMA RL and SRL (44 CFR 77.2); repeat-flood, any definition</i> | Public Assistance matched<br><i>federal share obligated, nominal dollars</i> | Event records naming this place<br><i>all years; since the member's plan</i> | Notes                                                                                    |
|--------------------|--------|------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| King County        | County | Approved, expires 2030-08-03 | FMA RL 29, SRL 48; any 170                                                           | \$234,890,151.52                                                             | 0; 0                                                                         | Includes \$200,688,833.61 for declarations not counted as hazard incidents (DR-4481-WA). |
| Algona city        | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | none found                                                                   | 0; 0                                                                         |                                                                                          |
| Bellevue city      | City   | Approved, expires 2030-11-18 | FMA RL 0, SRL 0; any 4                                                               | \$5,674,262.01                                                               | 3; 0                                                                         | Includes \$1,124,436.54 for declarations not counted as hazard incidents (DR-4481-WA).   |
| Bothell city       | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$761,827.85                                                                 | 1; 0                                                                         | Includes \$77,342.01 for declarations not counted as hazard incidents (DR-4481-WA).      |
| Carnation city     | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$32,052.56                                                                  | 2; 0                                                                         |                                                                                          |
| Duvall city        | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 1                                                               | \$245,338.61                                                                 | 2; 0                                                                         | Includes \$75,242.02 for declarations not counted as hazard incidents (DR-4481-WA).      |
| Issaquah city      | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 6; any 20                                                              | \$1,292,232.36                                                               | 2; 0                                                                         | Includes \$26,881.84 for declarations not counted as hazard incidents (DR-4481-WA).      |
| Kenmore city       | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 1                                                               | \$688,386.67                                                                 | 0; 0                                                                         |                                                                                          |
| Kent city          | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 4                                                               | \$914,793.38                                                                 | 1; 0                                                                         |                                                                                          |
| Kirkland city      | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 1                                                               | \$662,361.34                                                                 | 2; 0                                                                         | Includes \$302,501.39 for declarations not counted as hazard incidents (DR-4481-WA).     |
| Maple Valley city  | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$140,362.25                                                                 | 0; 0                                                                         |                                                                                          |
| Mercer Island city | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$738,117.59                                                                 | 0; 0                                                                         | Includes \$65,409.98 for declarations not counted as hazard incidents (DR-4481-WA).      |
| Redmond city       | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$928,062.75                                                                 | 2; 0                                                                         | Includes \$471,543.51 for declarations not counted as hazard incidents (DR-4481-WA).     |
| Renton city        | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$3,558,287.88                                                               | 1; 0                                                                         |                                                                                          |
| Seattle city       | City   | Approved, expires 2027-01-20 | FMA RL 0, SRL 2; any 19                                                              | \$66,416,698.13                                                              | 6; 0                                                                         | Includes \$28,904,271.01 for declarations not counted as hazard incidents (DR-4481-WA).  |
| Shoreline city     | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 1                                                               | \$343,159.09                                                                 | 0; 0                                                                         | Includes \$65,779.72 for declarations not counted as hazard incidents (DR-4481-WA).      |
| Tukwila city       | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$229,657.44                                                                 | 0; 0                                                                         |                                                                                          |
| Woodinville city   | City   | Approved, expires 2030-08-03 | FMA RL 0, SRL 0; any 0                                                               | \$162,123.91                                                                 | 2; 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
- Changes in development in hazard-prone areas since the last approval, or a statement of none (E1-a)
- A problem statement per participant per hazard
- Future assets

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

| Hazard           | Building exposure<br><i>modeled dollars</i> | Agriculture exposure<br><i>modeled dollars</i> | Population exposed<br><i>people</i> | EAL buildings<br><i>modeled dollars per year</i> | EAL agriculture<br><i>modeled dollars per year</i> | EAL population equivalence<br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | EAL as % of exposure<br><i>buildings; agriculture where noted</i> | Storm Events damage since 2025-08-04<br><i>county-coded records, property plus crops, nominal dollars</i> | Zone-level damage since plan<br><i>property plus crops, reported for the zone</i> | Public Assistance since plan<br><i>nominal dollars; see note</i> | Note                                                            |
|------------------|---------------------------------------------|------------------------------------------------|-------------------------------------|--------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|
| Avalanche        | \$100,923,355                               |                                                | 10                                  | \$11,300                                         |                                                    | \$11,067,735                                                                                                     | 0.0112%                                                           |                                                                                                           |                                                                                   |                                                                  |                                                                 |
| Coastal Flooding | \$16,732,965,420                            |                                                | 34,626                              | \$1,366,142                                      |                                                    | \$129,523                                                                                                        | 0.00816%                                                          |                                                                                                           |                                                                                   |                                                                  |                                                                 |
| Cold Wave        | \$57,577,516,605                            | \$138,830,458                                  | 238,551                             | \$4,093                                          | \$23,858                                           | \$420,672                                                                                                        | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                                                 |
| Drought          |                                             | \$86,106,363                                   |                                     |                                                  | \$240                                              |                                                                                                                  | 0.000279% (agriculture)                                           |                                                                                                           |                                                                                   |                                                                  | NRI has no building exposure for this hazard; agriculture shown |
| Earthquake       | \$890,230,804,725                           |                                                | 2,269,675                           | \$740,198,161                                    |                                                    | \$474,514,169                                                                                                    | 0.0831%                                                           |                                                                                                           |                                                                                   |                                                                  |                                                                 |
| Hail             | \$527,738,326,671                           | \$174,417,860                                  | 2,268,178                           | \$428                                            | \$6,436                                            | \$789                                                                                                            | under 0.0001%                                                     |                                                                                                           |                                                                                   |                                                                  |                                                                 |
| Heat Wave        | \$527,738,326,671                           | \$174,417,860                                  | 2,268,178                           | \$5,114                                          | \$24,334                                           | \$18,888,588                                                                                                     | under 0.0001%                                                     |                                                                                                           | \$0                                                                               |                                                                  |                                                                 |
| Hurricane        |                                             |                                                |                                     |                                                  |                                                    |                                                                                                                  |                                                                   |                                                                                                           |                                                                                   |                                                                  | Not Applicable in NRI for this county                           |
| Ice Storm        | \$525,145,688,330                           |                                                | 2,254,791                           | \$1,022,951                                      |                                                    | \$279,806                                                                                                        | 0.000195%                                                         |                                                                                                           |                                                                                   |                                                                  |                                                                 |

| <b>Hazard</b>     | <b>Building exposure</b><br><i>modeled dollars</i> | <b>Agriculture exposure</b><br><i>modeled dollars</i> | <b>Population exposed</b><br><i>people</i> | <b>EAL buildings</b><br><i>modeled dollars per year</i> | <b>EAL agriculture</b><br><i>modeled dollars per year</i> | <b>EAL population equivalence</b><br><i>statistical value of life and injury, \$13.7M per life, not property damage</i> | <b>EAL as % of exposure</b><br><i>buildings; agriculture where noted</i> | <b>Storm Events damage since 2025-08-04</b><br><i>county-coded records, property plus crops, nominal dollars</i> | <b>Zone-level damage since plan</b><br><i>property plus crops, reported for the zone</i> | <b>Public Assistance since plan</b><br><i>nominal dollars; see note</i> | <b>Note</b>                                                                                                                                                                                          |
|-------------------|----------------------------------------------------|-------------------------------------------------------|--------------------------------------------|---------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inland Flooding   | \$526,533,069,248                                  | \$104,145,871                                         | 20,579                                     | \$416,682,218                                           | \$72                                                      | \$192,828                                                                                                               | n/a (see note)                                                           |                                                                                                                  |                                                                                          | \$221,361.13                                                            | 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         | \$30,999,505,466                                   |                                                       | 127,433                                    | \$878,176                                               |                                                           | \$793,339                                                                                                               | 0.00283%                                                                 |                                                                                                                  |                                                                                          | \$221,361.13                                                            |                                                                                                                                                                                                      |
| Lightning         | \$527,738,326,671                                  |                                                       | 2,268,178                                  | \$67,658                                                |                                                           | \$682,748                                                                                                               | under 0.0001%                                                            |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |
| Strong Wind       | \$527,738,326,671                                  | \$174,417,860                                         | 2,268,178                                  | \$16,097                                                | \$2                                                       | \$22,413                                                                                                                | under 0.0001%                                                            |                                                                                                                  |                                                                                          | \$221,361.13                                                            |                                                                                                                                                                                                      |
| Tornado           | \$527,738,326,671                                  | \$174,417,860                                         | 2,268,178                                  | \$1,046,607                                             | \$743                                                     | \$2,488,285                                                                                                             | 0.000198%                                                                |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |
| Tsunami           | \$15,635,515,817                                   |                                                       | 2,364                                      | \$662,356                                               |                                                           | \$5,604,253                                                                                                             | 0.00424%                                                                 |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |
| Volcanic Activity | \$527,738,326,671                                  |                                                       | 2,268,178                                  | \$577,699                                               |                                                           | \$1,284,945                                                                                                             | 0.000109%                                                                |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |
| Wildfire          | \$46,409,269,019                                   | \$23,877,905                                          | 206,478                                    | \$473,450                                               | \$55                                                      | \$13,552                                                                                                                | 0.00102%                                                                 |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |
| Winter Weather    | \$527,738,326,671                                  | \$174,417,860                                         | 2,268,178                                  | \$251,237                                               | \$1,659                                                   | \$561,625                                                                                                               | under 0.0001%                                                            |                                                                                                                  |                                                                                          |                                                                         |                                                                                                                                                                                                      |

Totals since 2025-08-04 (Storm Events through 2026-06-30): 0 county-coded records, 0 with a damage value recorded (including \$0), \$0; 1 zone-level records, 1 with a damage value recorded (including \$0), \$0 reported for the zone; Public Assistance on counted declarations \$221,361.13 (2 declarations, 1 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](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](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                                                                                                                                                                    | 2,268,178         |
| Building value (total, not at risk)                                                                                                                                           | \$527,738,326,671 |
| Agriculture value (total, not at risk)                                                                                                                                        | \$174,417,860     |
| NRI risk rating (all hazards)                                                                                                                                                 | Very High         |
| Expected annual loss, buildings and agriculture, all hazards                                                                                                                  | \$1,163,321,085   |
| 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) | \$516,945,270     |
| Social vulnerability rating                                                                                                                                                   | Very Low          |
| Community resilience rating                                                                                                                                                   | Very 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](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](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) | 61         | Severe repetitive loss, FMA definition (44 CFR 77.2) | 100        |
| Repetitive loss, NFIP insurance definition    | 353        | Severe repetitive loss, NFIP insurance definition    | 48         |

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<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|-----------------------------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| County total                                        | 61                           | 100                           | 353                           | 48                             | 412                               | 52                             | 218                                    |
| KING COUNTY*                                        | 29                           | 48                            | 137                           | 19                             | 170                               | 21                             | 89                                     |
| AUBURN, CITY OF (community ID not in plan data)     | 0                            | 1                             | 0                             | 0                              | 1                                 | 1                              | 0                                      |
| BELLEVUE, CITY OF                                   | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 1                                      |
| DES MOINES, CITY OF (community ID not in plan data) | 0                            | 0                             | 2                             | 0                              | 2                                 | 0                              | 2                                      |

| Scope                                                  | RL, FMA<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|--------------------------------------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| ISSAQUAH, CITY OF                                      | 0                            | 6                             | 20                            | 6                              | 20                                | 3                              | 10                                     |
| KENT, CITY OF                                          | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 4                                      |
| KIRKLAND, CITY OF                                      | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| NORMANDY PARK, CITY OF (community ID not in plan data) | 0                            | 0                             | 2                             | 0                              | 2                                 | 0                              | 1                                      |
| NORTH BEND, CITY OF (community ID not in plan data)    | 0                            | 1                             | 4                             | 1                              | 4                                 | 0                              | 2                                      |
| PACIFIC, CITY OF (community ID not in plan data)       | 1                            | 0                             | 4                             | 0                              | 5                                 | 0                              | 2                                      |
| SEATTLE, CITY OF                                       | 0                            | 2                             | 19                            | 2                              | 19                                | 0                              | 8                                      |
| SNOQUALMIE, CITY OF (community ID not in plan data)    | 31                           | 41                            | 139                           | 20                             | 163                               | 27                             | 92                                     |
| SKYKOMISH, TOWN OF (community ID not in plan data)     | 0                            | 1                             | 4                             | 0                              | 4                                 | 0                              | 2                                      |
| DUVALL, CITY OF                                        | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| BURIEN, CITY OF (community ID not in plan data)        | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 3                                      |
| FEDERAL WAY, CITY OF (community ID not in plan data)   | 0                            | 0                             | 3                             | 0                              | 3                                 | 0                              | 1                                      |
| SHORELINE, CITY OF                                     | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 1                                      |
| KENMORE, CITY OF                                       | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |
| SAMMAMISH, CITY OF (community ID not in plan data)     | 0                            | 0                             | 2                             | 0                              | 2                                 | 0                              | 0                                      |
| Unknown (community ID Unknown in FEMA 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<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> | Note |
|--------------------|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|------|
| King County        | 530071            | 29                           | 48                            | 137                           | 19                             | 170                               | 21                             | 89                                     |      |
| Algona city        | 530072            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Bellevue city      | 530074            | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 1                                      |      |
| Bothell city       | 530075            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Carnation city     | 530076            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Duvall city        | 530282            | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |      |
| Issaquah city      | 530079            | 0                            | 6                             | 20                            | 6                              | 20                                | 3                              | 10                                     |      |
| Kenmore city       | 530336            | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |      |
| Kent city          | 530080            | 0                            | 0                             | 4                             | 0                              | 4                                 | 0                              | 4                                      |      |
| Kirkland city      | 530081            | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 0                                      |      |
| Maple Valley city  | 530078            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Mercer Island city | 530083            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |

| Member           | NFIP community ID | RL, FMA<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> | Note |
|------------------|-------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|------|
| Redmond city     | 530087            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Renton city      | 530088            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Seattle city     | 530089            | 0                            | 2                             | 19                            | 2                              | 19                                | 0                              | 8                                      |      |
| Shoreline city   | 530327            | 0                            | 0                             | 1                             | 0                              | 1                                 | 0                              | 1                                      |      |
| Tukwila city     | 530091            | 0                            | 0                             | 0                             | 0                              | 0                                 | 0                              | 0                                      |      |
| Woodinville city | 530324            | 0                            | 0                             | 0                             | 0                              | 0                                 | 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<br><i>properties</i> | SRL, FMA<br><i>properties</i> | RL, NFIP<br><i>properties</i> | SRL, NFIP<br><i>properties</i> | Any category<br><i>properties</i> | Mitigated<br><i>properties</i> | Currently insured<br><i>properties</i> |
|---------------------------|------------------------------|-------------------------------|-------------------------------|--------------------------------|-----------------------------------|--------------------------------|----------------------------------------|
| single-family residential | 58                           | 90                            | 316                           | 42                             | 372                               | 49                             | 203                                    |
| 2 to 4 unit residential   | 0                            | 2                             | 11                            | 0                              | 13                                | 3                              | 4                                      |
| other residential         | 0                            | 1                             | 5                             | 1                              | 5                                 | 0                              | 3                                      |
| non-residential           | 3                            | 7                             | 21                            | 5                              | 22                                | 0                              | 8                                      |
| 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 31 properties are FMA repetitive loss but not NFIP repetitive loss, and 323 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](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](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_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_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_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_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_elsd_national.zip), [https://www2.census.gov/geo/docs/maps-data/data/gazetteer/2024\\_Gaz\\_scscd\\_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/codes2020/national_place_by_county2020.txt), [https://www2.census.gov/geo/docs/reference/ct\\_change/ct\\_cou\\_to\\_cousub\\_crosswalk.xlsx](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). King County, WA: risk-assessment baseline packet, release 2026-10 (data as of 2026-09-28; County area 53033). 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\_53033. Preview: automated baseline.