

The question is not if but when?



EARTHQUAKES



FLOODS



SEVERE WEATHER



VOLCANO



WILDLAND FIRES



HUMAN GENERATED

Floods caused by HEAVY RAINS are the most commonly occurring event in our area... or another intro sentence.

- All rivers and streams are impacted from heavy rains, usually from November through February.
- Snow melt in the spring can also cause flooding.
- Impacts those living or working in valleys.
- Can cause mudslides/landslides.
- Roadways covered with water are also a hazard and may change your route of travel.
- During the 2000's we experienced two Presidential Declarations because of two major flood events.
- Pierce County moved away from limiting the rivers' movements with levees and retainment structures, allowing the rivers, where possible, to return to historical channels.

SEVERE WEATHER includes a variety of events that are harmful to residents and/or infrastructure in the county.

- These weather disturbances are usually characterized by strong winds frequently combined with rain, snow, sleet, hail, ice, thunder, and lightning.
- This definition includes unusual weather disturbances such as tornadoes or waterspouts, which appear infrequently in Pierce County.
- In addition, any heavy fall of snow or rain might be considered a severe storm in its own right.
- Secondary incidents that occur from severe weather include:
 - power outages
 - closed transportation routes
 - limited emergency response
 - pollution and environmental damage

MOUNT RAINIER is a beautiful attraction in our county.

- Yet volcanic hazards can occur with or without an actual eruption.
- The USGS differentiates volcanic activity into two types, non eruptive and eruptive
- Non-eruptive events (non-magmatic), such as the generation of debris flows, there is generally no movement of magma and there may not be any detectable precursors to the event
- Eruptions (magmatic activity) can usually be detected through volcano monitoring, so there is generally some warning prior to a magmatic event
- Our river valleys, with their origin from Mount Rainier, are areas at greater risk from debris flows or lahars than the rest of the county
- Ash fall can impact the county and areas beyond our borders. No volcano is remote.

There are numerous locations within Pierce County where structural DEVELOPMENTS MEET AND INTERMINGLE with the wildland areas.

- This condition gives rise to the possibility of "Wildland Urban Interface" fires
- Dry weather conditions and fuels (things that burn easily) are abundant.
- Residents in rural areas are responsible to educate themselves and take actions to lessen their risk from a WUI fire.

HUMANS BRING A VARIETY OF HAZARDS on themselves. A common concern: hazardous materials spilling from trucks, trains or boats. Causes of these or other human generated may vary from accidental to intentional.

- Incidents may be either generated from
 - a fixed site or
 - the result of a transportation related accident or release.
- A hazardous materials spill can be a health concern regarding breathing and skin exposure or fire and explosions.
- See the county Hazard Identification and Risk Assessment (select for link) for more details on human caused disasters.

FEMA also has information regarding human generated hazards

Earthquakes come in SEVERAL VARIETIES or another intro sentence.

CRUSTAL

- Magnitude up to 7.5
- Difficult to forecast, science on shallow quakes is very new
- Last Crustal earthquake was in 1872, epicenter near Eniate WA.

DEEP EARTHQUAKES MOST COMMON

- Magnitude 7.5—every 30-50 years
- Magnitude 6s—every 50-100 years 7.1 (1949), 6.5 (1965), 6.7 (2001)

CASCADIA SUBDUCTION ZONE MEGA THRUST

- Magnitude 9 along coast, with minutes of shaking
- Magnitude 8-9+ maybe every 300-500 years 9.0 (1700) January 26th 9 p.m., Japanese tsunami records give us the date and time.

Scroll across any hazard to link to more details.