

APPENDIX C

REGION 5 HAZARD MITIGATION PLAN GLOSSARY

A

Anthropogenic – Resulting from human influence on nature.

Aquifer – An underground layer of water permeable rock or unconsolidated material, like sand or gravel, from which ground water can be extracted.

Attenuate – To lessen, the amount, force, magnitude or value of something. In the case of earthquake waves it has to do with their decrease in size and energy as they progress out from the Focus over time and distance.

B

Benioff Zone – A deep active seismic area within a subducting plate; also called Benioff-Wadati Zone or Wadati-Benioff Zone.

Biotic Zone – An area easily defined by the similar plants and animals lining throughout it.

Brownout – A period of lowered illumination from reduced electrical distribution when demand exceeds a utility's ability to respond to that demand.

C

Clastic – Rock composed of fragments of older rocks.

Climate Change – A generic term, that refers to the variations in weather, on either regional or global scales, over time.

Cordilleran Ice Sheet – The large ice sheet that covered much of North America and expanded south from British Columbia into Western Washington around 15,000 years ago, extending south into Thurston County. See Fraser Glaciation.

Cornice – A mass of snow projecting over a ridge.

Coseismic Subsidence – Subsidence happening simultaneously with an earthquake.

Coseismic Uplift – Surface uplift happening simultaneously with an earthquake.

Critical Facilities – Those facilities, or portions of the infrastructure, that must be continually maintained for the preservation of the community.

D

Deltaic – Relating to or having aspects of a delta.

Disaster – The impact on a community of one or more hazards that outstrips the community's ability to cope with injury, death, property damage, or disruption to essential functions. It is the intersection of a hazard with the human environment that produces a disaster.

Drift – The general term for unconsolidated sediment transported by glaciers and deposited directly on land or in the sea.

Duff - Partially and fully decomposed organic matter on forest floor.

E

Epicenter – The point on the earth's surface directly over an earthquake's Focus.

F

FEMA Region X – FEMA Administrative Region consisting of the states of Alaska, Idaho, Oregon and Washington.

Focus – The point along a fault where an earthquake first occurs.

Fraser Glaciation – The period of extensive glacial advance, retreat and readvance into the Puget lowlands, lasting approximately 10,000 years and ending around 11,000 years ago. See Cordilleran Ice Sheet.

Fuel Moisture Content – The quantity of moisture in the fuel expressed as a percent of the overall oven dried weight.

G

Glacial Outburst Flood – A sudden release of water that was impounded within the confines of a glacier, causing a debris flow. These are not usually of great size.

Glacial Outwash – Stratified material, generally composed of sand and gravel, carried away from a glacier by the meltwater stream and deposited at some point downstream.

Graupel – Granular snow pellets, also called soft hail.

H

Hazard – A condition, natural or technological, that has the potential to threaten human life and property.

HLS Region 5 – See Homeland Security Region 5.

Hoarfrost - A deposit of interlocking ice crystals (hoar crystals) formed on objects, which have a surface sufficiently cooled, mostly by nocturnal radiation, to cause the direct sublimation of the water vapor contained in the ambient air. In the case of hoarfrost development on the surface of a hillside covered by previously fallen snow, it can form a very weak layer that when covered by a new layer of snow may increase the tendency for the slope to avalanche.

Homeland Security Region 5 – Pierce County.

Hydrothermal Alteration – The process where water percolating down through cracks in volcanic is heated to steam, becomes a weak sulfuric acid solution that then begins to change the chemical composition of the rock, transforming it into clay.

Hyperconcentrated Stream Flow – An intermediate level between a normal stream flow and a debris flow. They are flows with a sediment load usually ranging between 4% and 60% by volume or 10% and 80% by weight.

I

Interplate – The processes that occur on the boundary area between two tectonic plates.

Intraplate – Occurring within a tectonic plate.

Infrastructure – The underlying physical structure that supports a community and maintains the community's quality of life.

L

Lapilli – Tephra ranging in size from 2 to 64 millimeters in size.

Lateral Spreading – Essentially a landslide that occurs on very shallow or level slopes due to the horizontal movement of the ground surface from liquefaction. See Liquefaction.

Liquefaction – The tendency for soft soils, especially with a high water content, to soften further or liquefy, with ground shaking so as to be unable to support structures built on them. Water within the soils is frequently expressed to the surface and may form small boils of sand or mud.

Liquefiable Soils – Soil types that tend to soften or lose structural integrity with ground shaking. See Liquefaction.

M

Magmatic – Relating to magma. In the case of volcanoes Magmatic Events are eruption related events.

Magnitude – A measure of size. To measure the size of an earthquake a number of Magnitude Scales are used. These include, among others, the Richter Scale, the Body Wave Magnitude Scale and the Moment Magnitude Scale. Each one measures a different portion of an earthquake. The Moment Magnitude Scale is the closest to measuring an earthquake's size because it measures the actual energy released by the earthquake.

Mitigation – Those actions taken to reduce or eliminate the long-term risk to people, property, the social infrastructure, or the environment from hazards and their effects.

N

Natural Hazard – Hazards that are part of the natural environment.

O

Ocean Conveyor Belt - The global recirculation of water masses that determines today's climate.

P

Peak Ground Acceleration – Measurement of ground acceleration created by earthquake waves as a percent of gravity. Acceleration is usually along all three axes, albeit at different rates.

Pluton – A body of igneous rock formed beneath the surface of the earth by the consolidation and cooling of magma.

Pre-Adoption Review – A review of a plan by the Washington State Emergency Management Division and FEMA to correct any errors or omissions prior to local adoption.

Probability of Exceedance – The percentage chance that something will occur more frequently than at a specified level. For example a 2% Probability of Exceedance for a specific peak ground acceleration in 10 years means that there is a 1 in 50 chance that there will be an earthquake strong enough to cause higher peak ground acceleration than the specified level during a ten year period.

Private Sector – Those portions of the community that are owned, controlled or funded by individuals or businesses.

Public Sector – Those portions of the community that are controlled and/or funded by the community at large.

Q

Quaternary (Period) – A geologic period covering approximately the last 2.588 million years, up to the present.

R

Region 5 – See Homeland Security Region 5.

Repetitive Loss Properties – A classification under the National Flood Insurance Program of properties that flood multiple times.

Revetment – The armoring by placing a stone facing on an embankment to prevent erosion.

Rise – The % increase in steepness of a slope compared with the horizontal.

Risk – The probability that any physical, structural or socioeconomic element will be damaged, destroyed or lost to a natural technological or socially derived hazard.. Risk is a combination of the susceptibility (vulnerability) of a jurisdiction and its infrastructure, assets, citizens or environment from a particular threat (hazard) and the potential effects (consequences) if that threat materializes.

Robert T. Stafford Disaster relief and Emergency Assistance Act as Amended – The federal legislation that constitutes the statutory authority for most Federal disaster response activities, especially as they pertain to FEMA and FEMA programs.

S

Saltation – On snowfields, the tendency for particles to be picked up and bounced along the surface by the wind.

Section 322 – That section of the Stafford Act outlining the requirements that state and local mitigation plans must follow if they wish to be eligible for federal mitigation monies.

Seiche - An oscillating water wave in an enclosed or partially enclosed body of water.

Serac – A large ice block or pinnacle in a glacier formed at the intersection of two or more crevasses. Since they form on steep convex slopes they tend to be very unstable and frequently collapse.

Stafford Act – See Robert T. Stafford Disaster relief and Emergency Assistance Act as Amended.

Subaerial Landslide – A landslide located above the still water line of a lake or other body of water. The term is generally used in connection with tsunamis generated by landslides entering a body of water.

Subduct – The process where one tectonic plate slides under another.

Sublimation - The transition of a substance from the solid phase directly to the vapor phase, or vice versa, without passing through an intermediate liquid phase.

Submarine Landslide – A landslide located below the still water line of a lake or other body of water.

Subsidence – A sinking of the land.

T

Tectonic Plate – Any of a number of large pieces of the earth's crust that slowly moves, or slides, independent of other pieces, across the earth's mantle.

Tephra – Airborne volcanic ejecta of any size.

Tertiary (Period) – An interval of geologic time, lasting from 65 to 1.8 million years ago.

Till – Glacially deposited unstratified material consisting of sand, clay, gravel and boulders mixed together.

Tsunami – A wave caused by an unusual disturbance of the water, usually caused by an earthquake, landslide or undersea volcanic eruption.

Turbulent Suspension – The picking up from the ground and suspension of snow particles in the air by the continued upward movement of air near the surface.

V

Volcaniclastic – A clastic rock containing volcanic fragments.

Vulnerability – The susceptibility of a jurisdiction, its assets, infrastructure, citizens or environment to damage, destruction, or incapacitation from a particular hazard.

W

Water Purveyor – A utility, either public or private, that acts as a water distribution source for a select community or geographic area.

Waterspout – A tornado that is on a body of water.

WUI Fire (Wildland/Urban Interface Fire) - A fire located in a geographic area with a mixture of human developed land combined with natural vegetative fuels such as forest or grassland.