

## Chapter 7 GLOSSARY

**100-year flood** means a flooding condition which has a 1% chance of occurring each year. The 100-year flood is the benchmark upon which the National Flood Insurance Program (NFIP) is based.

**Amplification** is the modification of frequency or strength of seismic earth movement at a location due to thickness, topography, and physical properties of soft surface sediments.

**Ash** is composed of fine particles of volcanic rock and glass blown into the atmosphere by a volcanic eruption.

**Bombs** are fragments of tephra (particles ejected into the air during volcanic eruptions) larger than 2.5 inches.

**Bedrock shaking** is expected earth movement at a location due to seismic activity without considering soft sediment effects such as amplification and liquefaction.

**Caldera** is a large, generally circular, fault-bounded depression caused by the withdrawal of magma from below a volcano or volcanoes.

**Cascadia Subduction Zone** is the area where the seafloor plate (the Juan de Fuca or Gorda) is sliding down and below the North American plate.

**Cinder** is a bubbly (vesicular) volcanic rock fragment that forms when molten, gas-filled lava is thrown into the air, then solidifies as it falls.

**Conflagration Act** is state legal authority established as a civil defense measure to mobilize structural fire suppression resources for massive urban fires. It must be authorized by the Governor. The act includes authorization for OSFM to assign firefighting forces and equipment beyond mutual aid agreements. It also designates reimbursement for aid to those departments participating.

**Conflagration**, in the context of this Plan, means Governor-declared fires with an imminent threat to life or structures that have exhausted local and mutual aid suppression resources.

**Disaster Mitigation Act of 2000 (DMA2K)** amended the Stafford Act, establishing a national program for pre-disaster mitigation; streamlining the administration of disaster relief; changing FEMA's post-disaster programs for individuals and families; establishing minimum standards for public and private structures; requiring local and state natural hazards mitigation plans that meet a FEMA standard (Section 322); revising FEMA funding for the repair, restoration, and replacement of damaged facilities (Section 406); revising FEMA's participation in the costs of WUI fire suppression through an expanded and renamed Fire Management Assistance Grant Program (Section 420); removing the requirement for post-disaster IHMT or HMST meetings and reports; and other amendments.

**El Niño-Southern Oscillation** is a cycle in the Pacific Basin involving water and air temperatures that has a profound effect on weather patterns around the world; events typically last 6-18 months.

**FireFree** is an Oregon and national model developed in Oregon that predates the more recent nationally known Firewise. <http://www.firefree.org/>

**Firewise** is a program developed by the National Fire Protection Association (NFPA) featuring templates to help communities reduce risk and protect property from the dangers of wildland fires; an interactive, resource-rich website; and training programs throughout the nation. <http://www.firewise.org/>

**Floodplain** is a land area adjacent to a river, stream, lake, estuary, or other water body that is subject to flooding. These areas, if left undisturbed, act to store excess flood water.

**Floodway** is the channel of a river or other watercourse and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

**Flows** are rapid to slow mass movement of saturated material moving down a slope. *Debris flows* occur when a landslide moves rapidly downslope as a semi-fluid mass scouring or partially scouring soils from the slope along its path. Other *flow* types include earthflows, mudflows, lahars, debris torrents, and creep.

**Foredune** is a dune lying parallel to the ocean, occurring at the landward edge of the beach or at the landward limit of the highest tide, which has been stabilized by vegetation.

**Goal 7** of the Oregon Statewide Land Use Planning Program calls for local comprehensive plans to include inventories, policies, and implementing measures to guide development in hazard areas with the goal of reducing losses from flooding, landslides, earthquakes, tsunamis, coastal erosion, and wildfires.

**Hazard** is any situation that has the potential of causing damage to people, property, or the environment.

**Hazard Mitigation Grant Program** means the program authorized under Section 404 of the Stafford Act and implemented at 44 CFR Part 206, Subpart N, which authorizes funding for certain mitigation measures identified through the evaluation of natural hazards conducted under Section 322 of the Stafford Act. (44 CFR 201.2)

**Hazard mitigation** means any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards. (44 CFR 201.2)

**Hazus (HAZards United States)** is a loss estimation methodology that is a FEMA software program using mathematical formulas and information about building stock, local geology, and the location and size of potential earthquakes, economic data, and other information to estimate losses from potential earthquakes.

**Hazus-MH (Hazus Multi-Hazards)** is a methodology that expands on Hazus (cf.) by estimating potential losses from earthquakes, hurricane winds, and floods.

**Lahar** is a type of mudflow that originates on the slopes of volcanoes when volcanic ash and debris become saturated with water and flows rapidly downslope.

**Lava** is magma that reaches the Earth's surface through a volcanic eruption and when cooled and solidified, forms igneous rock.

**Landslide** is any detached mass of soil, rock, or debris that moves down a slope or a stream channel.

**Lateral spreading** is failure on very gentle slopes or flat terrain. The failure is usually associated with water-saturated, loose sediment spreading laterally due to liquefaction during earthquakes or human-caused rapid ground motion.

**Lidar** (Light Detection and Ranging) is an optical remote sensing technology that can measure the distance to, or other properties of a target by illuminating the target with light, often using pulses from a laser.

**Liquefaction** is the reaction of saturated soil to seismic earth movement causing the soil to behave like a liquid.

**Littoral cells** are beaches composed of sand, gravel, or both that may be bounded by prominent headlands limiting sand exchange.

**Magma** is molten rock that may be completely liquid or a mixture of liquid rock, dissolved gases and crystals.

**Pyroclastic flow** is an extremely hot mixture of gas, ash and pumice fragments that travels down the flanks of a volcano or along the surface of the ground at speeds of up to 150 miles per hour and tends to flow down valleys.

**Magnitude (M)** is a measure of the amount of energy released by an earthquake.

**Major disaster** means any natural catastrophe including any hurricane, tornado, storm, high water, wind-driven water, tidal wave, tsunami, earthquake, volcanic eruption, landslide, mudslide, snowstorm or drought, or, regardless of cause, any fire, flood, or explosion in any part of the United States, which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance to supplement the efforts and available resources of states, local governments, and disaster relief organizations in alleviating the damage, loss, hardship, or suffering caused thereby. (44 CFR 206.2)

**Megathrust** is both the giant fault that separates the two plates in a subduction zone and the giant earthquake that occurs when that fault moves.

**National Fire Plan** is a federal program that helps manage the impact of wildfire on communities. It has five main components: (a) firefighting, (b) rehabilitation and restoration, (c) hazardous fuel reduction, (d) community assistance, and (e) accountability.

**National Flood Insurance Program** is the program run by the federal government to improve floodplain management, reduce flood-related disaster costs, and provide flood insurance for residents of flood-prone communities.

**Natural Hazards Mitigation Plan** means a plan meeting the requirements of 44 CFR 201.4, 201.5, or 201.6.

**Senate Bill 360** in 1997 established the policy and framework for meeting the fire protection needs of the wildland-urban interface.

**Pacific Decadal Oscillation** is a similar but longer-term cycle than the El Niño-Southern Oscillation with typical events lasting 20-30 years.

**Public Assistance** is that part of the disaster assistance program in which the federal government supplements the efforts and available resources of state and local governments to restore certain public facilities or services. Public Assistance includes emergency assistance, debris removal, community disaster loans, and the permanent repair, restoration, or replacement of public and designated private nonprofit facilities damaged or destroyed by a major disaster and is further described under Section 406 of the Stafford Act.

**Pyroclastic surge** is a dilute version of a pyroclastic flow, which can move even more rapidly and easily moves up and over ridges.

**Shield volcano** is a gently sloping volcano in the shape of a flattened dome and built almost exclusively of lava flows.

**Rock falls** are masses of rock fragments that break away from a steep slope and travel mostly by free fall, coming to rest at the base of a slope as talus debris.

**Slides** have a distinct zone of weakness that separates the overlying failed material from more stable underlying material. Types of slides include rotational (movement along a curved surface) and translational (movement along a flat surface).

**Special Flood Hazard Area** is the land in the floodplain within a community subject to a 1% or greater chance of flooding in any given year. (44 CFR 59.1)

**Stafford Act** means the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 100-707, which amended PL 91-606 and PL 93-288; then was further amended by PL 106-390, the Disaster Mitigation Act of 2000; and PL 109-295, the Post-Katrina Emergency Reform Act).

**State Hazard Mitigation Officer** is the official representative of state government who is the primary point of contact with FEMA, other federal agencies, and local governments in mitigation planning and implementation of mitigation programs and activities required under the Stafford Act. In Oregon, the State Hazard Mitigation Officer position resides in the Oregon Military Department's Office of Emergency Management.

**State Interagency Hazard Mitigation Team** is a permanent body of state agency officials established in 1997 to understand losses arising from natural hazards and coordinate recommended strategies to mitigate loss of life, property, and natural resources.

**Stratovolcano** is a relatively long-lived volcano built up of both lava flows and pyroclastic material.

**Structural fire protection** is protection of structures by established municipal fire departments and rural fire protection districts with specific equipment and training.

**Subduction zone** is the area between two converging plates, one of which is sliding down and below the other.

**Subduction zone earthquake** is an earthquake along a subduction zone. In Oregon, usually refers to the Cascadia Subduction Zone (CSZ), which lies off shore of the Oregon coast.

**Subduction** is the process of one crustal plate sliding down and below another crustal plate as the two converge.

**Surface fault** is a fault that ruptures to the Earth's surface.

**Tectonic** refers to large-scale vertical or horizontal movement of the earth's crust.

**Tectonic plate** is a slab of rigid lithosphere (crust and uppermost mantle) that moves over the asthenosphere.

**Tephra** is a general term for all sizes of particles ejected into the air during volcanic eruptions. Tephra includes particles as tiny as volcanic ash and as large as bombs.

**Tsunami** is a series of waves generated by undersea earthquakes or landslides.

**Vulnerability** is the susceptibility of life, property, or the environment to damage if a hazard manifests to potential.

**Wave runup** is the swash of a broken wave as it travels up the beach face.

**Wildfire hazard zone** means the portion of a local government jurisdiction that has been determined to be at risk of a catastrophic wildfire.

**Wildland-urban interface (also known as wildland interface, forestland-urban interface, interface)** is an area where structures are adjacent to or are intermingled with natural vegetative fuels which is prone to the occurrence of wildland fires.