



9.0 DEFINITIONS

100-hundred year floodplain. Also referred to as the Base Flood Elevation (BFE) and Special Flood Hazard Area (SFHA). An area within a floodplain having a 1 percent or greater chance of flood occurrence in any given year.

Acquisition of hazard-prone structures. Local governments can acquire lands in high hazard areas through conservation easements, purchase of development rights, or outright purchase of property.

Actions. Specific actions that help achieve goals and objectives. Multiple mitigation actions may be defined to feed into an evaluation of the alternative actions.

Arson. The act of willfully and maliciously burning of property, especially with criminal or fraudulent intent.

Asset. Any natural or human-made feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

Base Flood Elevation (BFE). Elevation of the base flood in relation to a specified datum, such as the National Geodetic Vertical Datum of 1929. The Base Flood Elevation is used as a standard for the National Flood Insurance Program.

Benefit-Cost Analysis (BCA). Benefit-cost analysis is a systematic, quantitative method of comparing the projected benefits to projected costs of a project or policy. It is used as a measure of cost effectiveness.

Best Management Practices (BMPs). Appropriate, site-specific management techniques that maximize the benefits of land and natural resource management actions, while minimizing impacts.

Biological Hazards. A hazard caused by the presence of any micro-organism, virus, infectious substance, or biological product that may be engineered as a result of biotechnology or any naturally occurring micro-organism, virus, infectious substance, or biological product, capable of causing death, disease, or other biological malfunction.

Bond. A debt obligation issued by states, cities, counties, and other governmental entities to raise money to pay for public projects, such as government facilities and infrastructure.

Building codes. Regulations that set forth standards and requirements for the construction, maintenance, operation, occupancy, use, or appearance of buildings, premises, and dwelling units. Building codes can include standards for structures to withstand natural hazards.

Building. A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.

Building/structure collapse. The failure and downfall of a structure. The collapse may result from a variety of natural causes such as hurricanes/typhoons, earthquakes, tornadoes, floods, or from manmade circumstances such as construction deficiencies, neglect, aging infrastructure, or acts of terrorism.

Capability assessment. An assessment that provides an inventory and analysis of a community or state's current capacity to address the threats associated with hazards. The capability assessment attempts to identify and evaluate existing policies, regulations, programs, and practices that positively or negatively affect the community or state's vulnerability to hazards or specific threats.

Channel maintenance. Ensuring that flood channels, storm sewers, retaining ponds, etc. do not become blocked by debris, sedimentation, overgrowth, or structural failure. Coastal zone. The area along the shore where the ocean meets the land as the surface of the land rises above the ocean. This land/water interface includes barrier islands, estuaries, beaches, coastal wetlands, and land areas with direct drainage to the ocean.



Civil disobedience. The refusal to obey civil laws or decrees, usually taking the form of passive resistance. People practicing civil disobedience break a law because they consider the law unjust, want to call attention to its justice, and hope to bring about its repeal or amendment. They are also willing to accept a penalty for breaking the law.

Civil disturbance. When individuals or segments of the population create a situation, often a result of civil unrest, requiring a response from the emergency response community to protect lives and property. The disturbance may be small and isolated to a small area or be of a larger scale and exceeding the response capabilities of a jurisdiction. Activities are normally active (demonstrations, looting, riots) rather than passive (public speeches, sit-downs, marches).

Civil unrest. When a segment of the civil population indicates its discontent or dissatisfaction with existing political, social, or religious issues. The unrest may materialize as a civil disturbance or civil disobedience. Activities may be passive (public speeches, sit-downs, marches) or active (demonstrations, looting, riots).

Coastal erosion. The process of erosion of coastal areas via wave action, particularly due to high surf and storm surge caused by tropical storms (e.g., hurricanes, typhoons). May include damage to barrier islands, estuaries, beaches, coastal wetlands, and land areas with direct drainage to the ocean.

Coastal zone management regulations. Regulations enacted to control growth and protect natural resources along coastlines. Under the federal Coastal Zone Management Act (CZMA) enacted in 1972, states and local governments adopt coastal zone management regulations designed to preserve, protect, and, where possible, restore or enhance valuable natural coastal resources such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the wildlife dependent on those habitats.

Community Emergency Response Team (CERT). CERT is the mechanism to establish, train and maintain a local cadre of residents to act as first responders in the event of an emergency. A CERT team is especially critical in the first three days following a disaster when conditions may prevent access by emergency response personnel.

Community Rating System (CRS). CRS is a program that provides incentives for National Flood Insurance Program communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of the policyholders in those communities are reduced.

Comprehensive plan. A document, also known as a “general plan,” covering the entire geographic area of a community and expressing community goals and objectives. The plan lays out the vision, policies, and strategies for the future of the community, including all of the physical elements that will determine the community’s future development. This plan can discuss the community’s desired physical development, desired rate and quantity of growth, community character, transportation services, location of growth, and siting of public facilities and transportation. In most states, the comprehensive plan has no authority in and of itself, but serves as a guide for community decision-making.

Consequences. The damage (full or partial), injuries, and losses of life, property, environment, and business that can be quantified by some unit of measure, often in economic or financial terms.

Construction of barriers around structures. Protective structures, such as berms and retaining walls, created by grading or filling areas with soil meant to keep flood waters from reaching buildings.

Cost-effectiveness. Cost-effectiveness is a key evaluation criterion for federal grant programs. Cost-effectiveness has several possible definitions, although for grant-making purposes FEMA defines a cost-effective project as one whose long-term benefits exceed its costs. That is, a project should prevent more expected damage than it costs initially to fund the effort. This is done to ensure that limited public funds are used in the most efficient manner possible. Benefit-cost analysis is one way to illustrate that a project is cost-effective.



Critical buildings, facilities, and infrastructure. Buildings, facilities and infrastructure vital to the health, safety, and welfare of the population and the functioning of the community. For the purpose of this plan the following are considered critical buildings, facilities and infrastructure:

- Essential Facilities are essential to the health and welfare of the whole population and are especially important following hazard events. Essential facilities include hospitals and other medical facilities, police and fire stations, emergency operations centers and evacuation shelters, and schools.
- Transportation Systems include airways – airports, heliports; highways – bridges, tunnels, roadbeds, overpasses, transfer centers; railways – trackage, tunnels, bridges, rail yards, depots; and waterways – canals, locks, seaports, ferries, harbors, dry docks, piers.
- Lifeline Utility Systems such as potable water, wastewater, oil, natural gas, electric power and communication systems.
- High Potential Loss Facilities are facilities that would have a high loss associated with them, such as nuclear power plants, dams, and military installations. Not included due to control of these facilities by the US military.
- Hazardous Material Facilities include facilities housing industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins. Not considered due to the control of most of these by the US military or by private entities.

Note that the Critical Infrastructure Assurance Office (CIAO) defines eight categories of critical infrastructure, as follows: telecommunications infrastructure, electrical power systems, gas and oil facilities, banking and finance institutions, transportation networks, water supply systems, government services, emergency services.

Dam/levee failure. Dam/levee failure can be caused by natural occurrences such as floods, rock slides, earthquakes, or the deterioration of the foundation or the materials used in construction. Usually the changes are slow and not readily discovered by visual examination. Such a failure presents a significant potential for a disaster in that significant loss of life and property would be expected in addition to the possible loss of power and water resources.

Dams. Dams are artificial barriers which impound water, wastewater, or any liquid-borne material for the purpose of storage or control of water. For a more detailed definition, see the National Dam Safety Program Act (as amended through P.L. 106-580, December 29, 2000).

Debris. The scattered remains of assets broken or destroyed in a hazard event. Debris caused by a wind or water hazard event can cause additional damage to other assets.

Density controls. Regulations that manage growth by limiting the density of development, often expressed in terms of the number of dwelling units per acre. Density controls allow the community to plan in an orderly way for infrastructure.

Department of Homeland Security (DHS). Following the September 11, 2001 terrorist attacks, President George W. Bush created a new federal government department in order to bring 22 previously separate domestic agencies together. The new department's first priority is protecting the nation against further terrorist attacks. Component agencies analyze threats and intelligence, guard borders and airports, protect critical infrastructure, and coordinate the response for future emergencies. The new department is organized into five major directorates: Border and Transportation Security (BTS); Emergency Preparedness and Response (EPR); Science and Technology (S&T); and Information Analysis and Infrastructure Protection (IAIP); Management. In addition, several other critical agencies have been folded into the new department or are newly created. The Federal Emergency Management Agency (FEMA) is the foundation of the Emergency Preparedness and Response (EPR) Directorate.



Design review standards. Guidelines enacted by local governments requiring new development to meet certain appearance and aesthetic standards and establishing a process by which local officials can examine site plans or structure blueprints to assess compliance with those standards. Design review standards can help ensure new development blends with existing buildings and the landscape or meet other priorities, including hazard loss reduction.

Design standards. A set of guidelines pertaining to the appearance and aesthetics of buildings or improvements that governs construction, alteration, demolition, or relocation of a building or improvement of land.

Disaster Mitigation Act of 2000 (DMA 2000). DMA 2000 (Public Law 106-390) is the latest legislation to improve the planning process. It was signed into law on October 30, 2000. This new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur.

Drought. A drought occurs when water supplies cannot meet established demands. “Severe” to “extreme” drought conditions endanger livestock and crops, significantly reduce surface and ground water supplies, increase the potential risk for wildland fires, increase the potential for dust storms, and cause significant economic loss. Humid areas are more vulnerable than arid areas. Drought may not be constant or predictable and does not begin or end on any schedule.

Dune and beach restoration. Actions taken to re-establish dunes and beaches that serve as natural protection against coastal flooding and storm surge. Dune and beach restoration activities consist of replenishing sand, re-planting protective vegetation, controlling or restricting foot and vehicle traffic, and constructing sand traps or wind barriers.

Earthquake. An earthquake is a naturally-induced shaking of the ground, caused by the fracture and sliding of rock within the Earth’s crust. The magnitude is determined by the dimensions of the rupturing fracture (fault) and the amount of displacement that takes place. The larger the fault surface and displacement, the greater the energy. In addition to deforming the rock near the fault, this energy produces the shaking and a variety of seismic waves that radiate throughout the Earth. Earthquake magnitude is measured using the Richter Scale and earthquake intensity is measured using the Modified Mercalli Intensity Scale.

Easements. Grant a right to use property, or restrict the landowner’s right to use the property in a certain way.

Elevation of structures. Raising structures above the base flood elevation to protect structures

Emergency Preparedness and Response (EPR) Directorate. One of five major Department of Homeland Security Directorates which builds upon the formerly independent Federal Emergency Management Agency (FEMA). EPR is responsible for preparing for natural and man-made disasters through a comprehensive, risk-based emergency management program of preparedness, prevention, response, and recovery. This work incorporates the concept of disaster-resistant communities, including providing federal support for local governments that promote structures and communities that reduce the chances of being hit by disasters.

Emergency Response Plan. A document that contains information on the actions that may be taken by a governmental jurisdiction to protect people and property before, during, and after a disaster.

Emergency response services. The actions of first responders such as firefighters, police, and other emergency services personnel at the scene of a hazard event. The first responders take appropriate action to contain the hazard, protect property, conduct search and rescue operations, provide mass care, and ensure public safety.

Eminent domain. The right of a government to appropriate private property for public use, with adequate compensation to the owner.



Enemy attack. The use of aggressive action against an opponent in pursuit of an objective. An “enemy attack” is considered an attack of one sovereign government against another as either a declared or undeclared act of war.

Environmental review standards. Guidelines established to ensure new development adheres to certain construction and site design standards to minimize the impact on the environment.

Erosion. Wearing away of the land surface by detachment and movement of soil and rock fragments during a flood or storm over a period of years, through the action of wind, water, or other geologic processes.

Explosion/Fire. An explosion is the sudden loud release of energy and a rapidly expanding volume of gas that occurs when a gas explodes or a bomb detonates. Explosions result from the ignition of volatile products such as petroleum products, natural and other flammable gases, hazardous materials/chemicals, dust, and bombs. While an explosion surely may cause death, injury and property damage, a fire routinely follows which may cause further damage and inhibit emergency response.

Exposure. The number, types, qualities, or monetary values of various types of property or infrastructure and life that may be subject to an undesirable or injurious hazard event.

Extreme air pollution. Pollution is the contamination of the earth’s environment with materials that interfere with human health, the quality of life, or the natural functioning of ecosystems. Air pollution is the addition of harmful substances to the atmosphere. It makes people sick, causing breathing problems and sometimes cancer, and it harms plants, animals, and the ecosystems in which they live. Some pollutants return to earth in the form of acid rain and snow that corrodes structures, damage vegetation, and makes streams and lakes unsuitable for life. “Extreme air pollution” exceeds established thresholds resulting in the need to take corrective actions and cause the public to take precautions.

Extreme heat. Extreme heat is defined as temperatures that hover ten degrees or more above the average high temperature for the region and last for several weeks. Humid conditions may also add to the discomfort of high temperatures.

Federal Emergency Management Agency (FEMA). Formerly independent agency created in 1978 to provide a single point of accountability for all Federal activities related to disaster mitigation and emergency preparedness, response and recovery. As of March 2003, FEMA is a part of the Department of Homeland Security’s Emergency Preparedness and Response (EPR) Directorate.

Fire-proofing. Actions taken on and around buildings to prevent the spread of fires.

Flood Hazard Area. The area on a map shown to be inundated by a flood of a given magnitude.

Flood Insurance Rate Map (FIRM). Map of a community, prepared by FEMA, that shows the special flood hazard areas and the risk premium zones applicable to the community.

Flood Mitigation Assistance (FMA) Program. A program created as part of the National Flood Insurance Reform Act of 1994. FMA provides funding to assist communities and states in implementing actions that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other NFIP insurable structures, with a focus on repetitive loss properties.

Flood zone. A geographical area shown on a Flood Insurance Rate Map (FIRM) that reflects the severity or type of flooding in the area.

Floodplain development regulations. Regulations requiring flood insurance and mandating certain design aspects of new or substantially improved structures that lie within regulated flood-prone areas. Current federal regulations



through the National Flood Insurance Program require that, at a minimum, new residential buildings in the Special Flood Hazard Area have their lowest floor at or above the base flood elevation.

Floodplain zoning. Zoning regulations that prescribe special uses for and serve to minimize development in floodplain areas.

Flood-proofing. Actions that prevent or minimize future flood damage. Making the areas below the anticipated flood level watertight or intentionally allowing floodwaters to enter the interior to equalize flood pressures are examples of flood proofing.

Floods. A general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of inland or tidal waters, (2) the unusual and rapid accumulation or runoff of surface waters from any sources, or (3) mudflows or the sudden collapse of shoreline land.

Forest and vegetation management. The management of forests and vegetation so they are resilient to landslides, high-winds, and other storm-related hazards.

Forest fire fuel reduction. Minimizing fuel loads in forested areas by clearing excess ground cover and thinning diseased or damaged woodland to create healthier forests and to decrease the vulnerability to the devastation of forest fire.

Frequency. A measure of how often events of a particular magnitude are expected to occur. Frequency describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs, on average. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a 1 percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered. Probability is a related term.

Fuel/Resource shortage. A fuel/resource shortage is defined as an actual or potential shortage of natural gas, crude and refined petroleum, petroleum-derived fuels, or other critical commodities that significantly impacts the ability to: render essential government and emergency services (medical, fire, safety); and threatens the health and safety of the public.

Fujita scale of tornado intensity. Rates tornadoes with numeric values from F0 to F5 based on tornado winds speed and damage sustained. An F0 indicates minimal damage such as broken tree limbs or signs, while an F5 indicates severe damage sustained.

General obligation bond. A bond secured by the taxing and borrowing power of the municipality issuing it.

Geographic Information Systems (GIS). A computer software application that relates physical features on the earth to a database to be used for mapping and analysis.

Goals. General guidelines that explain what you want to achieve. Goals are usually broad statements with long-term perspective.

Hazard event. A specific occurrence of a particular type of hazard.

Hazard identification. The process of identifying hazards that threaten an area.

Hazard information center. Information booths, publication kiosks, exhibits, etc. that display information to educate the public about hazards that affect the jurisdiction and hazard mitigation activities people can undertake.

Hazard Mitigation Grant Program (HMGP). Authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, HMGP is administered by FEMA and provides grants to states, tribes, and local governments to implement hazard mitigation actions after a major disaster declaration. The purpose of the program



is to reduce the loss of life and property due to natural disasters and to enable mitigation activities to be implemented as a community recovers from a disaster.

Hazard mitigation. Cost effective measures taken to reduce or eliminate long-term risk from hazards and their effects.

Hazard profile. A description of the physical characteristics of hazards and a determination of various descriptors, including magnitude, duration, frequency, probability, and extent. In most cases, a community can most easily use these descriptors when they are recorded and displayed as maps.

Hazard threat recognition. The process of identifying possible hazards and estimating potential consequences.

Hazard warning systems. Systems or equipment such as community sirens and National Oceanic Atmospheric Administration (NOAA) weather radios designed to provide advanced warning of an impending hazard. Warning systems allow communities to take protective actions before a hazard event occurs, including taking cover, finding shelter, or moving furniture, cars, and people out of harm's way.

Hazard. A source of potential danger or adverse condition. Hazards include both natural and man-made events. A natural event is a hazard when it has the potential to harm people or property and may include events such as floods, earthquakes, , tsunami, typhoons, and wildfires that strike populated areas. Man-made hazard events originate from human activity and may include technological hazards and terrorism. Technological hazards arise from human activities and are assumed to be accidental and/or have unintended consequences (e.g., manufacture, storage and use of hazardous materials). While no single definition of terrorism exists, the Code of Federal Regulations defines terrorism as "...unlawful use of force and violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives."

Hazardous materials incidents. A spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment of a hazardous material, but excludes: (1) any release which results in exposure to poisons solely within the workplace, with respect to claims which such persons may assert against the employer of such persons; (2) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine; (3) release of source, byproduct, or special nuclear material from a nuclear incident; and (4) the normal application of fertilizer.

Hazardous surf. Coastal or lake surf that is unusually high that overpower persons and small watercraft near or in the water. Often associated with rip currents. Typically the result of regional weather systems, such as high winds or tropical storms.

HAZUS, HAZUS-MH. A GIS-based, nationally standardized, loss estimation tool developed by FEMA. HAZUS-MH is the new multi-hazard version that includes earthquake, wind, hurricane, and flood loss estimate components.

Health and safety maintenance. Sections of emergency response/operations plans that provide for the security of affected areas, including clean up and special precautions for each type of hazard (e.g., draining standing water after a flood, cautioning about aftershocks after an earthquake or successive tsunami waves, etc.).

Hillside development regulations. Site design and engineering techniques prescribed through regulations such as selective grading, drainage improvements, and vegetation clearance to eliminate, minimize, or control development on hillsides, thereby protecting the natural features of hillsides and reducing the likelihood of property damage from landslides.

Hostage situation. A situation in which people are held hostage and negotiations take place for their release. The situation may range from a simple domestic or isolated criminal act to an attempt to impose will on a national or international scale to intimidate or coerce a government to further a political, social, or religious objective.



Hurricane. An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or “eye.” Hurricanes develop over the north Atlantic Ocean, northeast Pacific Ocean, or the south Pacific Ocean east of 160°E longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Hysteria (Mass). Also known as “mass psychogenic illness” and “hysterical contagion,” mass hysteria is a situation in which a symptom or set of symptoms for which there is no physical explanation spreads quickly among a group. It may occur as a reaction to an incident of domestic terrorism.

Implementation strategy. A comprehensive strategy that describes how the mitigation actions will be implemented.

Infestations. An infestation consists of an invasion or spreading of a living organism (plant, animal, etc.) that has an adverse (unwanted) effect on the population or the environment. The effect may range from a simple nuisance to an infectious disease or destructive parasite or insect. Infestations may result from non-indigenous plants, rodents, weeds, parasites, insects, and fungi, and may adversely affect people, animals, agriculture, economy (e.g., tourism), and property.

Infrastructure. Refers to the public services of a community that have a direct impact on the quality of life. Infrastructure includes communication technology, such as phone lines or Internet access; vital services, such as public water supplies and sewer treatment facilities; and an area’s transportation system. Airports, heliports, highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots; and waterways, canals, locks, seaports, ferries, harbors, dry docks, piers, and regional dams.

Landslides/mudslides/debris flows. Landslides, like avalanches are massive downward and outward movements of slope-forming materials. The term landslide is restricted to movement of rock and soil and includes a broad range of velocities. Slow movements, although rarely a threat to life, can destroy buildings or break buried utility lines. A landslide occurs when a portion of a hill slope becomes too weak to support its own weight. The weakness is generally initiated when rainfall or some other source of water increases the water content of the slope, reducing the shear strength of the materials. A mud slide is a type of landslide referred to as a flow. Flows are landslides that behave like fluids: mud flows involve wet mud and debris.

Levees and floodwalls. Flood barriers constructed of compacted soil or reinforced concrete walls.

Liquefaction. The phenomenon that occurs when ground shaking (earthquake) causes loose soils to lose strength and act like viscous fluid. Liquefaction causes two types of ground failure: lateral spread and loss of bearing strength.

Loss estimation. Forecasts of human and economic impacts and property damage from future hazard events, based on current scientific and engineering knowledge.

Memorandum of Agreement (MOA). A non-binding statement that defines the duties, responsibilities, and commitment of the different parties or individuals; provides a clear statement of values, principles, and goals; and establishes an organizational structure to assist in measuring and evaluating progress.

Mitigate. To cause to become less harsh or hostile; to make less severe or painful. Mitigation activities are actions taken to eliminate or reduce the probability of the event, or reduce its severity of consequences, either prior to or following a disaster/emergency.

Mitigation actions. Activities, measures, or projects that help achieve the goals and objectives of a mitigation plan.

Mitigation plan. A systematic evaluation of the nature and extent of vulnerability to the effects of natural hazards typically present in a defined geographic area, including a description of actions to minimize future vulnerability to hazards.



Modified Mercalli Intensity Scale. The Modified Mercalli Intensity Scale is commonly used in the United States by seismologists seeking information on the severity of earthquake effects. Intensity ratings are expressed as Roman numerals between I at the low end and XII at the high end. The Intensity Scale differs from the Richter Magnitude Scale in that the effects of any one earthquake vary greatly from place to place, so there may be many Intensity values (e.g.: IV, VII) measured from one earthquake. Each earthquake, on the other hand, should have just one Magnitude, although the several methods of estimating it will yield slightly different values (e.g.: 6.1, 6.3).

National Flood Insurance Program (NFIP). Federal program created by Congress in 1968 that makes flood insurance available in communities that enact minimum floodplain management regulations as indicated in 44 CFR §60.3.

Objectives. Objectives define strategies or implementation steps to attain the identified goals. Unlike goals, objectives are specific and measurable.

Open space preservation. Preserving undeveloped areas from development through any number of methods, including low-density zoning, open space zoning, easements, or public or private acquisition. Open space preservation is a technique that can be used to prevent flood damage in flood-prone areas, land failures on steep slopes or liquefaction-prone soils, and can enhance the natural and beneficial functions of floodplains.

Ordinance. A term for a law or regulation adopted by a local government.

Performance standards. Standards setting the allowable effects or levels of impact of development. Often used in conjunction with traditional zoning, the standards typically address specific environmental conditions, traffic, or stormwater runoff. Can also be imposed on structures in hazard areas to ensure they withstand the effect of hazards.

Planning team. A group composed of government, private sector, and individuals with a variety of skills and areas of expertise, usually appointed by a city or town manager, or chief elected official. The group finds solutions to community mitigation needs and seeks community acceptance of those solutions.

Planning. The act or process of making or carrying out plans; the establishment of goals, policies, and procedures for a social or economic unit.

Policy. A course of action or specific rule of conduct to be followed in achieving goals and objectives.

Post-disaster mitigation. Mitigation actions taken after a disaster has occurred, usually during recovery and reconstruction.

Post-disaster recovery ordinance. An ordinance authorizing certain governmental actions to be taken during the immediate aftermath of a hazard event to expedite implementation of recovery and reconstruction actions identified in a pre-event plan.

Post-disaster recovery planning. The process of planning those steps the jurisdiction will take to implement long-term reconstruction with a primary goal of mitigating its exposure to future hazards. The post-disaster recovery planning process can also involve coordination with other types of plans and agencies, but it is distinct from planning for emergency operations.

Power/utility failure. A power/utility failure is defined as an actual or potential shortage of electric power or the interruption of electrical power that significantly threatens health and safety. Many communities are vulnerable to many localized, short and long-term energy emergencies. Power shortages or failures do occur and may be brought on by severe weather conditions, such as blizzards, ice storms, extreme heat, thunderstorms, or events such as war, or civil disturbance.



Private activity bond. A bond whose interest may or may not be federally taxable. Under the Internal Revenue Code, private activity bonds are described generally as any bond. (1) of which more than 10% of the proceeds is to be used in a trade or business of any person or persons other than a governmental unit, and which is to be directly or indirectly repaid, or secured by revenues from, a private trade or business; and (2) in which an amount exceeding the lesser of 5% or \$5 million of the proceeds is to be used for loans to any person or persons other than a governmental unit. Certain private activity bonds are tax exempt when used to finance private water, wastewater, and multifamily housing projects.

Probability. A measure of how often events of a particular magnitude are expected to occur. Probability describes how often a hazard of a specific magnitude, duration, and/or extent typically occurs. Statistically, a hazard with a 100-year recurrence interval is expected to occur once every 100 years on average, and would have a 1 percent chance – its probability – of happening in any given year. The reliability of this information varies depending on the kind of hazard being considered. May also be measured in terms of the chance that an event will be exceeded (or not exceeded) over a specified period of time. Frequency is a related term.

Public education and outreach programs. Any campaign to make the public more aware of hazard mitigation and mitigation programs, including hazard information centers, mailings, public meetings, etc.

Q3 data. The Q3 Flood Data product is a digital representation of certain features of FEMA’s Flood Insurance Rate(FIRM) product, intended for use with desktop mapping and Geographic Information Systems technology. The digital Q3 Flood Data are created by scanning the effective Flood Insurance Rate(FIRM) paper maps and digitizing selected features and lines. The digital Q3 Flood Data are designed to serve FEMA’s needs for disaster response activities, National Flood Insurance Program activities, risk assessment, and floodplain management.

Radiological accident. A radiological accident is a release of radioactive materials. It can occur where radioactive materials are used, stored, or transported. Potentially nuclear power plants (fixed nuclear facilities), hospitals, universities, research laboratories, industries, major highways, railroads, or shipping yards could be the site of a radiological accident.

Radon. Radon is a naturally occurring radioactive gas that is odorless and tasteless. It is formed from the radioactive decay of uranium. Uranium is found in small amounts in most rocks and soil. It slowly breaks down to other products such as radium, which breaks down to radon. Radon also undergoes radioactive decay. Radon enters the environment from the soil, from uranium and phosphate mines, and from coal combustion. Radon has a radioactive half-life and about 4 days; this means the one-half of a given amount of radon will decay to other products every 4 days. Some of the radon produced in the soil will move to the surface and enter the air. Radon also moves from the soil and enters the groundwater.

Real estate disclosure. Laws requiring the buyer and lender to be notified if a property is located in a hazard-prone area.

Regulation. Most states have granted local jurisdictions broad regulatory powers to enable the enactment and enforcement of ordinances that deal with public health, safety, and welfare. These include building codes, building inspections, zoning, floodplain and subdivision ordinances, and growth management initiatives.

Relocation out of hazard areas. A mitigation technique that features the process of demolishing or moving a building to a new location outside the hazard area.

Repetitive loss property. A property that is currently insured for which two or more National Flood Insurance Program losses (occurring more than ten days apart) of at least \$1000 each have been paid within any 10-year period since 1978.



Reservoirs. Large water storage facilities that can be used to hold water during peak runoff periods for controlled release during off-peak periods.

Resolutions. Expressions of a governing body's opinion, will, or intention that can be executive or administrative in nature. Most planning documents must undergo a council resolution, which must be supported in an official vote by a majority of representatives to be adopted. Other methods of making a statement or announcement about a particular issue or topic include proclamations and declarations.

Resources. Resources include the people, materials, technologies, money, etc., required to implement strategies or processes. The costs of these resources are often included in a budget. See definition for structural retrofitting.

Richter Magnitude Scale. A logarithmic scale devised by seismologist C. F. Richter in 1935 to express the total amount of energy released by an earthquake. While the scale has no upper limit, values are typically between 1 and 9, and each increase of 1 represents a 32-fold increase in released energy.

Rip current. A rip current is a shallow river or channel of water on the surface of the ocean. Special weather conditions can cause rip currents to form, particularly strong winds blowing toward the shore which causes water pressure to build up on sandbars, reefs, or rocks.

Risk assessment. A process or method for evaluating risk associated with a specific hazard and defined in terms of probability and frequency of occurrence, magnitude and severity, exposure, and consequences.

Risk. The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

Sabotage. Sabotage is the deliberate destruction of property, dismantling of technology or other interference or obstruction of normal operations. "Sabotage" is normally considered an act related to war; similar acts during "non-war" conditions would be considered a terrorist act.

Safe room/shelter. A small interior room constructed above grade and used to provide protection from tornadoes and other severe storm events. Bathrooms and large closets often double as safe rooms.

Seawalls/bulkheads. Vertical coastal walls that are built and designed to protect buildings against shoreline erosion. May also protect against storm surge.

Sediment and erosion control regulations. Regulations that stipulate the amount of sediment and erosion that is acceptable for land undergoing development.

Shoreline setback regulations. Regulations that establish a minimum distance between the existing shoreline and buildable areas.

Special events. An event of such a magnitude, media visibility, or importance that may require extraordinary preparations by government and possible response by emergency response agencies. Such events may be considered an opportunity or target for activist or terrorist activities.

Special tax bond. A bond secured by the pledge of a specific special tax.

Special use permits. Permits granted by local governments for land uses that have the potential for creating conflicts with uses on adjacent properties.



Stafford Act. The Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-107 was signed into law November 23, 1988 and amended the Disaster Relief Act of 1974, PL 93-288. The Stafford Act is the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and its programs.

Stakeholder. Individual or group that will be affected in any way by an action or policy. Stakeholders include businesses, private organizations, and citizens.

State Hazard Mitigation Officer (SHMO). The representative of state government who is the primary point of contact with FEMA, other state and federal agencies, and local units of government in the planning and implementation of pre- and post-disaster mitigation activities.

Storm surge. Rise in the water surface above normal water level on the open coast due to the action of wind stress and atmospheric pressure on the water surface.

Storm water management regulations. Regulations governing the maintenance and improvement of urban storm water systems and the implementation of land treatment actions to minimize the effects of surface water runoff. Land treatment actions include maintenance of vegetative cover, terracing, and slope stabilization.

Strategy. Collection of actions to achieve goals and objectives.

Stream corridor restoration. The restoration of the areas bordering creeks, including the stream bank and vegetation.

Stream dumping regulations. Regulations prohibiting dumping in the community's drainage system, thereby maintaining stream carrying capacities and reducing the possibility of localized flooding.

Strike. A strike is an organized work stoppage carried out by a group of employees for the purpose either of enforcing demands relating to employment conditions on their employer or of protesting unfair labor practices. A strike may be engaged to obtain improvement in work conditions, higher wages or shorter hours, to forestall an adverse change in conditions of employment, or to prevent the employer from carrying out actions viewed by workers as detrimental to their interests.

Structural retrofitting. Modifying existing buildings and infrastructure to protect them from hazards.

Subdivision and development regulations. Regulations and standards governing the division of land for development or sale. Subdivision regulations can control the configuration of parcels, set standards for developer-built infrastructure, and set standards for minimizing runoff, impervious surfaces, and sediment during development. They can be used to minimize exposure of buildings and infrastructure to hazards.

Subdivision. The division of a tract of land into two or more lots for sale or development.

Subsidence. Land subsidence occurs when large amounts of ground water have been withdrawn from certain types of rocks, such as fine-grained sediments. The rock compacts because the water is partly responsible for holding the ground up. When the water is withdrawn, the rocks falls in on itself.

Substantial damage. Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage.

Taxation. Taxes and special assessments can be an important source of revenue for governments to help pay for mitigation activities. The power of taxation can also have a profound impact on the pattern of development in local communities. Special tax districts, for example, can be used to discourage intensive development in hazard-prone areas.



Terrorism (economic, cyber, nuclear, biological, and chemical). “Terrorism is the unlawful use of force or violence, or threatened use of force or violence, against persons and places for the purpose of intimidation and/or coercing a government, its citizens, or any segment thereof for political or social goals.” (Department of Justice, Federal Bureau of Investigation). Terrorism can include computer-based (cyber) attacks and the use of weapons of mass destruction (WMD) to include chemical, biological, radiological, nuclear, or explosive (CBRNE) agents.

Thunderstorms/high winds. Thunderstorms are characterized as violent storms that typically are associated with high winds, dust storms, heavy rainfall, hail, lightning strikes, and/or tornadoes. The unpredictability of thunderstorms, particularly their formation and the rapid movement to new locations heightens the possibility of floods.

Tornadoes/dust devils. A tornado is a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds in excess of 250 mph. Damage paths can exceed a mile wide and 50 miles long. Tornadoes are one of nature’s most violent storms. In an average year, 800 tornadoes are reported across the United States, resulting in 80 deaths and over 1,500 injuries. The damage from tornadoes is due to high winds. The Fujita Scale of Tornado Intensity measures tornado/high wind intensity and damage. A dust devil is a small but rapidly rotating column of wind made visible by the dust, sand, and debris it picks up from the surface. They typically develop best on clear, dry, hot afternoons.

Transfer of development rights (TDR). A growth management technique through which development rights are transferred from a designated “sending” area to a designated “receiving” area. The sending area is generally prohibited from development and the receiving area is a targeted development area that can be built at a higher density.

Transportation accident. A transportation accident is an incident related to a mode of transportation (highway, air, rail, waterway, port, harbor) where an emergency response is necessary to protect life and property.

Tropical storm. A tropical system in which the maximum sustained surface wind ranges from 34 to 63 knots (39 to 73 mph). Tropical storms are associated with heavy rain, high wind, and thunderstorms. High intensity rainfall in short periods is typical. A tropical storm is classified as a hurricane/typhoon when its sustained winds reach or exceed 74 mph (64 knots). These storms are medium to large in size and are capable of producing dangerous winds, torrential rains, and flooding, all of which may result in tremendous property damage and loss of life, primarily in coastal populated areas. The effects are typically most dangerous before a hurricane/typhoon makes landfall, when most damage occurs.

Tsunami. Great sea wave produced by submarine earth movement or volcanic eruption.

Urban forestry and landscape management. Forestry management techniques that promote the conservation of forests and related natural resources in urbanized areas, with a focus on obtaining the highest social, environmental, and economic benefits.

Volcanoes. A volcano is a vent in the Earth from which molten rock (magma) and gas erupt. The molten rock that erupts from the volcano (lava) forms a hill or mountain around the vent. The lava may flow out as a viscous liquid, or it may explode from the vent as solid or liquid particles. Volcanic eruptions can be placed into two general categories: those that are explosive and those that are effusive resulting in gently flowing lava flows, spatter cones, and lava fountains. Many eruptions are highly explosive in nature. They produce fragmental rocks from erupting lava and surrounding area rock and may produce fine volcanic ash that rises many kilometers into the atmosphere in enormous eruption columns. Explosive activity can also cause widespread ash fall, pyroclastic flows, debris avalanches, landslides, pyroclastic surges, and lahars.



Vulnerability assessment/analysis. The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability analysis should address impacts of hazard events on the existing and future built environment.

Vulnerability. Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions.

Vulnerable populations. Any segment of the population that is more vulnerable to the effects of hazards because of things such as lack of mobility, sensitivity to environmental factors, or physical abilities. These populations can include, but are not limited to, senior citizens and school children.

Wave run-up. The height that the wave extends up to on steep shorelines, measured above a reference level (the normal height of the sea, corrected to the state of the tide at the time of wave arrival).

Wetlands development regulations. Regulations designed to preserve and/or minimize the impact of development on wetlands.

Wildfires. Wildfire is a rapid, persistent chemical reaction that releases heat and light, especially the exothermic combination of a combustible substance with oxygen. Combine severe burning conditions with people or lightning and the stage is set for the occurrence of large, destructive wildfires.

Wind-proofing. Modification of design and construction of buildings to withstand wind damage.

Zoning. The division of land within a local jurisdiction by local legislative regulation into zones of allowable types and intensities of land uses.

Zoning or land use map. A map that identifies the various zoning district boundaries and the uses permitted by a zoning ordinance within those boundaries.

Zoning ordinance. Designation of allowable land use and intensities for a local jurisdiction. Zoning ordinances consist of two components. a zoning text and a zoning map.