

# APPENDIX D:

## GLOSSARY

These technical terms are described in more detail in the unit and section noted. In some cases definitions used in NFIP regulations have been shortened or simplified. See the NFIP regulations in Appendix E for the complete definitions.

A Zone: See Zone A.

Accrete: To build up a shoreline by depositing sand, either by nature or human actions. Unit 1, Section A.

Actual cash value: The replacement cost for a building, minus a depreciation percentage based on age and condition. Unit 8, Section A.

Alluvial fan: An area at the base of a valley where the slope flattens out, allowing the floodwater to decrease in speed and spread out, dropping sediment and rock over a fan-shaped area. Unit 1, Section A.

Amendment: A change to a FEMA floodplain map that removes an area that was inadvertently included in the Special Flood Hazard Area. Unit 4, Section D.

Approximate studies: Flood hazard mapping done using *approximate* study methods that show the *approximate* outline of the base floodplain. An approximate study does not produce a base flood elevation. Unit 3, Section A.

B Zone: See Zone B.

Base flood depth: A measurement of the base flood in feet above ground, used for shallow flooding. Unit 3, Section D.

Base flood: The flood having a 1% chance of being equaled or exceeded in any given year. Also referred to as the 100-year flood. The base flood is used by the NFIP as the basis for mapping, insurance rating, and regulating new construction. Unit 3, Section A.

Basement: Any area of the building having its floor subgrade (below ground level) on all sides. Unit 5, Section E.

Base floodplain: The area of water and land inundated by the base flood. Unit 3, Section A.

Basin: See watershed.

Bathymetry: The measurement of depths of water in the ocean or lakes. Unit 3, Section C.

Bench marks: Monuments on the ground that show the elevation of the spot above sea level. Unit 3, Section B.

Building: A walled and roofed structure including a gas or liquid storage tank that is principally above ground as well as a manufactured home. In this study guide, the term is the same as the term “structure” in the federal regulations (44 CFR 59.1). Unit 5, Section E.

Building condition survey: A windshield survey conducted to obtain a preliminary evaluation of the extent and severity of damage to buildings after a disaster. Unit 10, Section A.

C Zone: See Zone C.

CAP: Community Assistance Program

Catchment area: See watershed.

Cfs: Cubic feet per second, the unit by which discharges are measured (a cubic foot of water is about 7.5 gallons). Unit 3, Section B.

Channel: Defined landforms that carry water. Unit 1, Section A.

CLOMA: Conditional Letter of Map Amendment.

CLOMR: Conditional Letter of Map Revision.

Closed basin lake: A lake that has either no outlet or a relatively small one, where rainfall or groundwater can cause the lake’s level to rise faster than it can drain. Unit 1, Section A.

Coastal high hazard area: That part of the coastal floodplain extending from offshore to the inland limit of the primary coastal dune along an open coast and any other area subject to high velocity wave action from storms and seismic sources. Wave heights during the base flood will generally be three feet or more in height above the stillwater elevation. Unit 3, Section C.

CBRA: The Coastal Barrier Resources Act which identified undeveloped portions of coastal barriers. Unit 9, Section D and Unit 3, Section F.

Community Assistance Program: A FEMA program that funds state activities that help communities in the NFIP. Unit 2, Section C.

Community Rating System: A program that provides a flood insurance premium rate reduction based on a community’s floodplain management activities. Unit 10, Section D.

Community: A city, county, township, Indian tribe or authorized tribal organization, Alaska Native village or authorized native organization, or other local government with the statutory authority to adopt and enforce floodplain regulations and participate in the National Flood Insurance Program. Unit 2, Section C.

Conditional Letter of Map Amendment: A statement from FEMA that if a project is constructed as planned, a Letter of Map Amendment can be issued later. Unit 4, Section D.

Conditional Letter of Map Revision: A statement from FEMA that if a project is constructed as planned, a Letter of Map Revision can be issued later. Unit 4, Section D.

Contour map: A topographic map that shows points with the same elevation as connected by a contour line. Unit 3, Section B.

Contour: A line of equal elevation on a topographic (contour) map.

Conveyance shadow: An area upstream or downstream of an existing obstruction to flood flows. Unit 5, Section B.

Cross section: Surveyed information that describes the stream and the floodplain at a particular point along the stream. Unit 3, Section B.

CRS: Community Rating System

Dam breach inundation area: The area flooded by a dam failure. Unit 6, Section D.

Damage Survey Report: A form completed by disaster assistance staff to determine the repair and reconstruction needs of public and private nonprofit facilities. Unit 10, Section C.

Datum: A common vertical elevation reference point, usually in relation to sea level. Unit 3, Section B.

Detailed studies: Flood hazard mapping studies that are done use hydrologic and hydraulic methods that produce base flood elevations, floodways, and other pertinent flood data. Unit 3, Section A.

Development: Any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment and materials. Unit 5, Section C.

Discharge: The amount of water that passes a point in a given period of time. Rate of discharge is usually measured in cubic feet per second (cfs). Unit 3, Section B.

DSR: Damage survey report.

Elevation reference marks: See bench marks.

Emergency Operations Center: A facility that houses communications equipment that is used to coordinate the response to a disaster or emergency. Unit 10, Section A.

Eminent domain: Governmental power to acquire a property without the owner's consent. Unit 6, Section A.

Enabling legislation: State laws that authorize communities to perform governmental activities, such as enacting and enforcing regulations. Unit 7, Section A.

Encroachment review: An analysis to determine if a project will increase flood heights or cause increased flooding downstream. Unit 5, Section D.

EOC: Emergency Operations Center

EO 11988: Executive Order 11988 Floodplain Management. A directive by the President that sets procedures Federal agencies must follow before they take or fund an action in the floodplain. Unit 6, Section E.

FBFM: Flood Boundary Floodway Map. An official map of a community, on which the Federal Emergency Management Agency has delineated the regulatory floodway. Recent Flood Insurance Studies show the floodway on the FIRM and do not include an FBFM. Unit 3, Section F.

FEMA: Federal Emergency Management Agency. Most of the National Flood Insurance Program field work and community coordination are done by the 10 FEMA Regional Offices, which are listed in Appendix A.

FHBM: Flood Hazard Boundary Map. An official map of a community published by FEMA that delineates the approximate boundary of the floodplain. An FHBM is generally the initial map provided the community and is eventually superseded by a FIRM. Unit 3, Section F.

FIA: Federal Insurance Administration. FIA was the part of the Federal Emergency Management Agency that administered the National Flood Insurance Program. This is now the responsibility of FEMA's Mitigation Division.

FIRM: Flood Insurance Rate Map. An official map of a community, on which the Federal Emergency Management Agency has delineated both the Special Flood Hazard Areas and the risk premium zones applicable to the community. Unit 3, Section F.

Flash flood: A flood in hilly and mountainous areas that may come scant minutes after a heavy rain. One can also occur in urban areas where pavements and drainage improvements speed runoff to a stream. Unit 1, Section A.

Flood: A general and temporary condition of partial or complete inundation of normally dry land areas. Unit 2, Section B.

Flood fringe: The portion of the floodplain lying outside of the floodway. Unit 3, Section B

Flood hazard mitigation: All actions that can be taken to reduce property damage and the threat to life and public health from flooding. Unit 10, Section B.

Flood Insurance Study: A report published by FEMA for a community issued along with the community's Flood Insurance Rate Map (FIRM). The study contains such background data as the base flood discharges and water surface elevations that were used to prepare the FIRM.

Flood Mitigation Assistance: A grant program that supports plans and projects for mitigating losses to insured buildings funded by the National Flood Insurance Program. Unit 10, Section C.

Flood of record: The highest known flood level for the area, as recorded in historical documents. Unit 5, Section B.

Floodplain: Any land area susceptible to being inundated by flood waters from any source. Unit 1, Section A.

Floodproofing: Protective measures added to or incorporated in a building that is not elevated above the base flood elevation to prevent or minimize flood damage. "Dry floodproofing" measures are designed to keep water from entering a building. "Wet floodproofing" measures minimize damage to a structure and its contents from water that is allowed into a building.

Floodway: The channel of a river or other watercourse and that portion of the adjacent floodplain that must remain open to permit passage of the base flood without cumulatively increasing the water surface elevation more than a designated height (usually one foot). Unit 3, Section B.

FMA: Flood Mitigation Assistance.

Freeboard: A margin of safety added to the base flood elevation to account for waves, debris, miscalculations, or lack of data. Unit 6, Section C.

Functionally dependent use: A use which cannot perform its intended purpose unless it is carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo, and ship building and ship repair facilities.. Unit 7, Section F.

Geographic information system: Computer based map systems that allow the user to keep a map updated easily and to correlate geographic information with other data, such as tax records on properties. Unit 3, Section F.

GIS: Geographic information system

Hazard Mitigation Grant Program: A FEMA disaster assistance grant that funds mitigation projects. Unit 10, Section C.

HEC-2: A computer model used to conduct a hydraulic study, which produces flood elevations, velocities and floodplain widths. Unit 3, Section B.

HEC-RAS: A computer model used to conduct a hydraulic study, which produces flood elevations, velocities and floodplain widths. Unit 3, Section B.

Home rule: A community authorized to do anything that is not prohibited by statute. Unit 7, Section A.

Human intervention: Actions that must be taken by one or more persons before floodwaters arrive in order for a building to be floodproofed. Unit 5, Section E.

Hydrodynamic force: The force of moving water, including the impact of debris and high velocities. Unit 1, Section B.

Hydrologic cycle: The natural cycle that circulates water throughout the environment to maintain an overall balance between water in the air, on the surface and in the ground. Unit 1, Section A.

Hydrology: The science dealing with the waters of the earth. A flood discharge is developed by a hydrologic study.

Hydrostatic pressure: The pressure put on a structure by the weight of standing water. The deeper the water, the more it weighs and the greater the hydrostatic pressure. Unit 1, Section B.

ICC: Increased Cost of Compliance

Ice floe: Large chunks of ice that can cause a great deal of damage when a frozen river or lake begins to melt and break up. Unit 1, Section A.

Ice jam: Flooding that occurs when warm weather and rain break up frozen rivers and the broken ice floats downriver until it is blocked by an obstruction, creating an ice dam that blocks the channel and causes flooding upstream. Unit 1, Section A.

IFG: Individual and Family Grants

Increased Cost of Compliance: An additional claim payment made to a flood insurance policy holder to help cover the cost of bringing a substantially damaged or repetitively damaged building into compliance with the community's floodplain management ordinance. Unit 9, Section B.

Individual and Family Grants: A disaster assistance grant that helps people with their unmet needs (i.e., needs not helped by other disaster assistance programs. Unit 10, Section C.

Inverse condemnation: See "taking." Unit 6, Section A.

ISO: The Insurance Services Office, Inc., an insurance organization that provides support to FEMA on implementation of the Community Rating System. Unit 9, Section C.

Lateral pressure: The amount of pressure imposed sideways by standing water. Deeper water exerts more lateral pressure than shallower water. Unit 1, Section B.

Letter of Map Amendment (LOMA): An official revision to a FEMA map done by describing the property affected. LOMAs are generally issued when properties have been inadvertently included in the floodplain. Unit 4, Section D.

Letter of Map Change (LOMC): A Letter of Map Amendment or a Letter of Map Revision. Unit 4, Section D.

Letter of Map Revision (LOMR): An official revision to a FEMA map done by describing the property affected. Unit 4, Section D.

Limited Map Maintenance Project: A small-scale restudy of a Flood Insurance Study. Unit 4, Section D.

LOMA: Letter of Map Amendment

LOMR: Letter of Map Revision

Lowest Floor: The lowest floor of the lowest enclosed area (including basement) of a building. Unit 5, Section E

Manufactured home: A building that is transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. It includes mobile homes and “double wides.” Unit 5, Section E.

Market value: The price a willing buyer and seller agree upon. Unit 8, Section A.

Meander: A curve in a river. Unit 1, Section A.

Mitigation Division: The FEMA office that sets national policy for the NFIP and administers the mapping program. Unit 2, Section B.

M-O-M: Multi-objective management.

Movable bed streams: A type of flooding that features uncertain flow paths. Unit 1, Section A.

Mudslide (i.e., mudflow): A condition where there is a river, flow or inundation of liquid mud down a hillside. Unit 1, Section A.

Mudflow: See mudslide.

Multi-objective management: An approach to planning and funding local programs that involves a variety of local interests and concerns. Unit 10, Section B.

NEPA: The National Environmental Policy Act, a Federal law that requires agencies to evaluate the environmental impact of a proposed project. Unit 6, Section E.

NGVD: National Geodetic Vertical Datum of 1929, the national datum used by the National Flood Insurance Program. NGVD is based on mean sea level. It was known formerly as the "Mean Sea Level Datum of 1929 (MSL)." Unit 3, Section B.

No-rise Certification: A certification by an engineer that a project will not cause a set increase in flood heights. Unit 7, Section G.

Non-structural flood protection measures: Administrative tools for controlling flooding and flood damage, including regulations on development, building codes, property acquisition and structure relocation, and modification of existing buildings. Unit 1, Section B.

Ordinance: The generic term for a law passed by a local government. Unit 7, Section A.

Overbank flooding: Flooding that occurs when downstream channels receive more rain or snowmelt from their watershed than normal, or a channel is blocked by an ice jam or debris. Excess water overloads the channels and flows out onto the floodplain. Unit 1, Section A.

Planned unit development: A regulatory approach that allows a developer to design the entire area while individual requirements may be relaxed to allow for open space, mixed land uses, and other variances to traditional zoning rules. Unit 6, Section C.

Ponding: Runoff that collects in depressions and cannot drain out, creating a temporary pond. Unit 1, Section A.

Post-FIRM building: For insurance rating purposes, a post-FIRM building was constructed or substantially improved after December 31, 1974, or after the effective date of the initial Flood Insurance Rate Map of a community, whichever is later. For a community that participated in the NFIP when its initial FIRM was issued, post-FIRM buildings are the same as new construction and must meet the National Flood Insurance Program's minimum floodplain management standards.

Pre-FIRM building: For insurance rating purposes, a pre-FIRM building was constructed or substantially improved on or before December 31, 1974, or before the effective date of the initial Flood Insurance Rate Map of the community, whichever is later. Most pre-FIRM buildings were constructed without taking the flood hazard into account.

Probability: A statistical term having to do with the size of a flood and the odds of that size of flood occurring in any year. Unit 3, Section A.

Profile: A graph that shows elevations of various flood events. Unit 3, Section B.

Public/Infrastructure Assistance: A disaster assistance grant that helps public agencies and nonprofit organizations finance repairs and reconstruction of public infrastructure. Unit 10, Section C.

PUD: Planned unit development.

Q3 Flood Data Product: A graphical representation of certain features of a FIRM in digital format. Unit 3, Section F.

Recreational vehicle: A vehicle designed to be self propelled or permanently towable by a light duty truck that is designed for use as temporary living quarters for recreational, camping, travel, or seasonal use. Unit 5, Section E.

Reconstruction: Building a new structure on the old foundation or slab of a structure that was destroyed, damaged, purposefully demolished or razed. The term also applies when an existing structure is moved to a new site. Unit 8, Section B.

Regular Program: Also called the Regular Phase. The phase of community participation in the National Flood Insurance Program that begins on the date of the Flood Insurance Rate Map or when the community adopts an ordinance that meets the minimum requirements of the NFIP and adopts the technical data provided with the FIRM, whichever is later. Nearly all communities participating in the NFIP are in the Regular Program.

Rehabilitation: An improvement made to an existing structure which does not affect its external dimensions. Unit 8, Section A.

Restudy: A new Flood Insurance Study for all or part of a community that has already had a Flood Insurance Study. Unit 4, Section D.

Retrofitting: Retrofitting techniques include floodproofing, elevation, construction of small levees, and other modifications made to an existing building or its yard to protect it from flood damage.

Revision: A change to a floodplain map based on new data submitted to FEMA. Unit 4, Section D.

Riverine: Of or produced by a river. Riverine floodplains have readily identifiable channels. Floodway maps can only be prepared for riverine floodplains. Unit 1, Section A.

Roughness: A measure related to ground surface conditions that reflects changes in floodwater velocity due to ground friction. Unit 3, Section B.

Runoff: Rainfall and snowmelt that reaches a stream. Unit 3, Section B.

SFHA: Special Flood Hazard Area

Sheet flow: Floodwater that spreads out over a large area that does not have defined channels at a somewhat uniform depth. Unit 1, Section A.

Special Flood Hazard Area: the base floodplain displayed on FEMA maps. It includes the A and V zones. Unit 3, Section A.

Stafford Act: The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 as amended which authorizes FEMA's current disaster assistance programs and the Hazard Mitigation Grant Program. The Disaster Mitigation Act of 2000 made extensive changes to the Stafford Act. Unit 10, Section C.

Stationing: Determining the distance along a stream. Unit 3, Section B and Unit 4, Section B.

Statutory authority: The powers granted to a local government by state law. Unit 7, Section A.

Stillwater flood elevations show the elevations of various coastal floods, not counting waves. Unit 3, Section C.

Storm surge: Water that is pushed toward shore by persistent high wind and changes in air pressure. Storm surges can result from hurricanes and other coastal storms. Unit 1, Section A.

Stormwater management: Efforts to reduce the impact of increased runoff that results from new development. Unit 6, Section C.

Stormwater detention, Storing stormwater runoff for release at a restricted rate after the storm subsides. Unit 6, Section C.

Stormwater retention: Storing stormwater runoff for later use in irrigation or groundwater recharge, or to reduce pollution. Unit 6, Section C.

Structural flood control: Measures that control floodwaters by construction of barriers or storage areas or by modifying or redirecting channels. Unit 1, Section C.

Submit to rate: a process used when an insurance agent cannot complete the rate calculation for a flood insurance policy. The application is sent to the WYO Company or FEMA to be individually rated. Unit 9, Section B.

Substantial damage: Damage of any origin sustained by a structure 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 occurred. Unit 8, Section B.

Substantial improvement: Any reconstruction, rehabilitation, addition or other improvement to a structure, the total cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. The definition of “substantial improvement” includes buildings that have incurred “substantial damage” regardless of the actual repair work performed. Unit 8, Section A.

Taking: Obtaining private property with or without compensating the owner. The term also includes reducing the value of private property to such an extent that the owner is deprived of all economic interest. Unit 6, Section A.

Thalweg: The bottom of a river channel. Unit 1, Section A.

Topographic map: See contour map.

Transect: a survey of topographic conditions used in coastal flood studies. Unit 3, Section C.

Tsunami: A large wave caused by an underwater earthquake or volcano which can raise water levels as much as 15 feet. Unit 1, Section A.

V Zone: See "Zone V."

Variance: A grant of relief by a community from the terms of a land use, zoning or building code regulation. Unit 7, Section F.

Velocity: The speed of moving water, a force that is measured in feet per second. Unit 1, Section A.

Watershed,: An area that drains into a lake, stream or other body of water. Unit 1, Section A.

Wave runup occurs when waves hit the shore and water is moving with such force that it keeps traveling inland. Unit 3, Section C.

Wet floodproof: Protecting a building from flood damage by using flood-resistant materials below the flood level and elevating things subject to flood damage above the flood level. Unit 5, Section E.

Write Your Own: An insurance company that has agreed to sell flood insurance policies on behalf of the NFIP. Unit 9, Section A.

WYO: Write Your Own.

X Zone: See "Zone X."

Zone A: The Special Flood Hazard Area (except coastal V Zones) shown on a community's Flood Insurance Rate Map. Unit 3, Section F. There are five types of A Zones:

A: SFHA where no base flood elevation is provided.

A1-30: Numbered A Zones (e.g., A7 or A14), SFHA where the FIRM shows a base flood elevation in relation to NGVD.

AE: SFHA where base flood elevations are provided. AE Zone delineations are now used on new FIRMs instead of A# Zones.

AO: SFHA with sheet flow, ponding, or shallow flooding. Base flood depths (feet above grade) are provided.

AH: Shallow flooding SFHA. Base flood elevations in relation to NGVD are provided.

Zone B: Area of moderate flood hazard, usually depicted on Flood Insurance Rate Maps as between the limits of the base and 500-year floods. B Zones are also used to designate base floodplains of little hazard, such as those with average depths of less than 1 foot. Unit 3, Section F.

Zone C: Area of minimal flood hazard, usually depicted on Flood Insurance Rate Maps as above the 500-year flood level. B and C Zones may have flooding that does not meet the criteria to be mapped as a Special Flood Hazard Area, especially ponding and local drainage problems. Unit 3, Section F.

Zone D: Area of undetermined but possible flood hazard. Unit 3, Section F.

Zone V: The Special Flood Hazard Area subject to coastal high hazard flooding. There are three types of V Zones: V, V1-30, and VE, and they correspond to the A Zone designations. Unit 3, Section F.

Zone X: Newer Flood Insurance Rate Maps show Zones B and C (see above) as Zone X. Unit 3, Section F.