Appendix B

Glossary

Many of the terms defined here are also defined in the margins of pages on which they first appear or explained in the body of the text.

Active retrofitting method – Method that will not function as intended without human intervention. See "Passive retrofitting method."

Adjacent grade – See "Lowest Adjacent Grade (LAG)."

Alluvial fan flooding – Flooding that occurs on the surface of an alluvial fan (or similar landform) that originates at the apex of the fan and is characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

Armor – To protect fill slopes, such as the sides of a levee, by covering them with erosion-resistant materials such as rock or concrete.

Backfill – To fill in a hole with the soil removed from it or with other material, such as soil, gravel, or stone.

Backflow valve – see Check valve.

Base Flood – Flood that has a 1-percent probability of being equaled or exceeded in any given year. Also known as the 100-year flood.

Base Flood Elevation (BFE) – Elevation of the 100-year flood. This elevation is the basis of the insurance and floodplain management requirements of the National Flood Insurance Program.

Basement – As defined by the NFIP regulations, any area of a building having its floor subgrade on all sides.

Cast-in-place concrete – Concrete poured and formed at the construction site.

Check valve – Valve that allows water to flow in one direction but automatically closes when the direction of flow is reversed.

Closure – Shield made of strong material, such as metal or wood, used to temporarily close openings in levees, floodwalls, and dry floodproofed buildings.

Coastal High Hazard Area – Area of special flood hazard (designated Zone V, VE, or V1 - V30 on a FIRM) that extends from offshore to the inland limit of a primary frontal dune along an open coast, and any other area subject to high-velocity wave action from storms or seismic sources.

Compaction – In construction, the process by which the density of earth fill is increased so that it will provide a sound base for a building or other structure.

Crawlspace – Type of foundation in which the lowest floor of a house is suspended above the ground on continuous foundation walls.

Cribbing – Temporary supports usually consisting of layers of heavy timber

Datum plane – See "Elevation datum plane."

Debris – Materials carried by floodwaters, including objects of various sizes and suspended soils.

Design capacity – Volume of water that a channel, pipe, or other drainage line is designed to convey.

Dry floodproofing – Protecting a building by sealing its exterior walls to prevent the entry of flood waters.

Elevation – In retrofitting, the process of raising a house or other building so that it is above the height of a given flood.

Elevation datum plane – Arbitrary surface that serves as a common reference for the elevations of points above or below it. Elevations are expressed in terms of feet, meters, or other units of measure and are identified as negative or positive depending on whether they are above or below the datum plane.

Erosion – Process by which flood waters lower the ground surface in an area by removing upper layers of soil.

Federal Emergency Management Agency (FEMA) – 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. FEMA administers the NFIP.

Federal Insurance Administration (FIA) – Component of FEMA directly responsible for administering the flood insurance aspects of the NFIP.

Fill – Material such as soil, gravel, or stone which is dumped in an area and to increase the ground elevation. Fill is usually placed in layers and each layer compacted (see "Compaction").

Flap valve – see "Check valve."

Flash flood – Flood that rises very quickly and usually is characterized by high flow velocities. Flash floods often result from intense rainfall over a small area, usually in areas of steep terrain.

Flood – Under the NFIP, a partial or complete inundation of normally dry land areas from 1) the overland flow of a lake, river, stream, ditch, etc., 2) the unusual and rapid accumulation or runoff of surface waters; and 3) mudflows or the sudden collapse of shoreline land.

Flood depth – Height of flood waters above the surface of the ground at a given point.

Flood duration – Amount of time between the initial rise of flood, including freeboard, waters and their recession.

Flood elevation – Height of flood waters above an elevation datum plane.

Flood frequency – Probability, expressed as a percentage, that a flood of a given size will be equaled or exceeded in any given year. The flood that has a 1-percent probability (1 in 100) of being equaled or exceeded in any given year is often referred to as the 100-year flood. Similarly, the floods that have a 2-percent probability (1 in 50) and a 0.2-percent (1 in 500) of being equaled or exceeded in any year are referred to as the 50-year flood and the 500-year flood, respectively.

Flood Protection Elevation (FPE) – Elevation of the highest flood, including freeboard, that a retrofitting method is intended to protect against.

Floodplain – Any area susceptible to inundation by water from any source. See "Regulatory floodplain."

Floodplain management – Program of corrective and preventive measures for reducing flood damage, including flood control projects, floodplain land use regulations, floodproofing or retrofitting of buildings, and emergency preparedness plans.

Floodproofing – Structural or nonstructural changes or adjustments included in the design, construction, or alteration of a building that reduce damage to the building and its contents from flooding and erosion. See "Dry floodproofing" and "Wet floodproofing."

Floodwall – Flood barrier constructed of manmade materials, such as concrete or masonry.

Floodway – Portion of the regulatory floodplain that must be kept free of development so that flood elevations will not increase beyond a set limit – a maximum of 1 foot under the National Flood Insurance Program (NFIP). The floodway usually consists of the stream channel and land along its sides.

Flow velocity – Speed at which water moves during a flood. Velocities usually vary across the floodplain. They are usually greatest near the channel and lowest near the edges of the floodplain.

Footing – Enlarged base of a foundation wall or independent vertical member (such as a pier, post, or column) for a house or other structure, including a floodwall. A footing provides support by spreading the load of a structure so that the bearing capacity of the soil is not exceeded.

Freeboard – Additional amount of height incorporated into the FPE to account for uncertainties in the determination of flood elevations.

Frequency – See "Flood frequency."

Grade beam – In a slab foundation, a support member cast as an integral part of the slab, as opposed to a separate footing.

Hazard mitigation – Action taken to reduce or eliminate long-term risk to people and property from hazards such as floods, earthquakes, and fires.

Human intervention – Any action that a person must take to enable a flood protection measure to function as intended. This action must be taken every time flooding threatens.

Hydrodynamic force – Force exerted by moving water.

Hydrostatic force – Force exerted by water at rest, including lateral pressure on walls and uplift (buoyancy) on floors.

Impervious soils – Soils that resist penetration by water.

Levee – Flood barrier constructed of compacted soil.

Local officials – Community employees who are responsible for floodplain management, zoning, permitting, building code enforcement, and building inspection.

Lowest Adjacent Grade (LAG) – Elevation of the lowest ground surface that touches any of the exterior walls of a building.

Lowest floor – Floor of the lowest enclosed area within the building, including the basement.

Masonry veneer – Nonstructural, decorative, exterior layer of brick, stone, or concrete block added to the walls of a building.

Mean Sea Level (MSL) – Datum plane; the average height of the sea for all stages of the tide, usually determined from hourly height observations over a 19-year period on an open coast or in adjacent waters having free access to the sea.

National Geodetic Vertical Datum (NGVD) – Elevation datum plane previously used by FEMA for the determination of flood elevations.

North American Vertical Datum Plane – Elevation datum currently used by FEMA for the determination of flood elevations.

Passive retrofitting method – Method that operates automatically, without human intervention. See "Active retrofitting method."

Permeable Soils – Soils that water can easily penetrate and spread through.

Pier – Vertical support member of masonry or cast-in-place concrete that is designed and constructed to function as an independent structural element in supporting and transmitting both building loads and environmental loads to the ground.

Piling – Vertical support member of wood, steel, or precast concrete that is driven or jetted into the ground and supported primarily by friction between the pilings and the surrounding earth. Piling often cannot act as independent support units and therefore are often braced with connections to other pilings.

Post – Long vertical support member of wood or steel set in holes that are backfilled with compacted material. Posts often cannot act as independent support units and therefore are often braced with connections to other posts.

Precast concrete – Concrete structures and structural members brought to the construction site in completed form.

Rates of rise and fall – How rapidly the elevation of the water rises and falls during a flood.

Regulatory floodplain – Flood hazard area within which a community regulates development, including new construction, the repair of substantially damaged buildings, and substantial improvements to existing buildings. In communities participating in the NFIP, the regulatory floodplain must include at least the area inundated by the base flood, also referred to as the Special Flood Hazard Area (SFHA). See "Floodplain."

Reinforcement – Inclusion of steel bars in concrete members and structures to increase their strength.

Relocation – In retrofitting, the process of moving a house or other building to a new location outside the flood hazard area.

Retrofitting – Making changes to an existing house or other building to protect it from flooding or other hazards.

Riprap – Pieces of rock added to the surface of a fill slope, such as the side of a levee, to prevent erosion.

Saturated soils – Soils that have absorbed, to the maximum extent possible, water from rainfall or snowmelt.

Scour – Process by which flood waters remove soil around objects that obstruct flow, such as the foundation walls of a house.

Sealant – In retrofitting, a waterproofing material or substance used to prevent the infiltration of flood water.

Service equipment – In retrofitting, the utility systems, heating and cooling systems, and large appliances in a house.

Slab-on-grade – Type of foundation in which the lowest floor of the house is formed by a concrete slab that sits directly on the ground. The slab may be supported by independent footings or integral grade beams.

Special Flood Hazard Area (SFHA) – Portion of the floodplain subject to inundation by the base flood, designated Zone A, AE, A1 - A30, AH, AO, V, VE, V1 - V30, or M on a FIRM.

Storm surge – Rise in the level of the ocean that results from the decrease in atmospheric pressure associated with hurricanes and other storms.

Subgrade – Below the level of the ground surface.

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.

Substantial improvement – Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the start of construction of the improvement. This term applies to structures that have incurred substantial damage, regardless of the actual repair work performed.

Sump pump – Device used to remove water from seepage or rainfall that collects in areas protected by a levee, floodwall, or dry floodproofing. In addition, a sump pump is often part of a standard house drainage system that removes water that collects below a basement slab floor.

Tsunami – Great sea wave produced by an undersea earth movement or volcanic eruption.

Veneer – See "Masonry veneer."

Walkout-on-grade basement – Basement whose floor is at ground level on at least one side of a house. The term "walkout" is used because most basements of this type have an outside door at ground level. A walkout-on-grade basement is not considered a basement under the NFIP. See "Basement".

Wet floodproofing – Protecting a building by allowing flood waters to enter so that internal and external hydrostatic pressures are equalized. Usually, only enclosed areas used for parking, storage, or building access are wet floodproofed.