Subpart C—Additional Considerations in Managing Flood-Prone, Mudslide (i.e., Mudflow)-Prone and Flood-Related Erosion-Prone Areas

§ 60.21 Purpose of this subpart.

The purpose of this subpart is to encourage the formation and adoption of overall comprehensive management plans for flood-prone, mudslide (i.e., mudflow)-prone and flood-related erosion-prone areas. While adoption by a community of the standards in this subpart is not mandatory, the community shall completely evaluate these standards.

§ 60.22 Planning considerations for flood-prone areas.

- (a) The flood plain management regulations adopted by a community for flood-prone areas should:
- (1) Permit only that development of flood-prone areas which (i) is appropriate in light of the probability of flood damage and the need to reduce flood losses, (ii) is an acceptable social and economic use of the land in relation to the hazards involved, and (iii) does not increase the danger to human life.
- (2) Prohibit nonessential or improper installation of public utilities and public facilities in flood-prone areas.
- (b) In formulating community development goals after the occurrence of a flood disaster, each community shall consider—
- (1) Preservation of the flood-prone areas for open space purposes;
- (2) Relocation of occupants away from flood-prone areas;
- (3) Acquisition of land or land development rights for public purposes consistent with a policy of minimization of future property losses;
- (4) Acquisition of frequently flood-damaged structures;
- (c) In formulating community development goals and in adopting flood plain management regulations, each community shall consider at least the following factors—
 - (1) Human safety;
- (2) Diversion of development to areas safe from flooding in light of the need to reduce flood damages and in light of

the need to prevent environmentally incompatible flood plain use;

- (3) Full disclosure to all prospective and interested parties (including but not limited to purchasers and renters) that (i) certain structures are located within flood-prone areas, (ii) variances have been granted for certain structures located within flood-prone areas, and (iii) premium rates applied to new structures built at elevations below the base flood substantially increase as the elevation decreases;
- (4) Adverse effects of flood plain development on existing development;
- (5) Encouragement of floodproofing to reduce flood damage;
- (6) Flood warning and emergency preparedness plans;
- (7) Provision for alternative vehicular access and escape routes when normal routes are blocked or destroyed by flooding;
- (8) Establishment of minimum floodproofing and access requirements for schools, hospitals, nursing homes, orphanages, penal institutions, fire stations, police stations, communications centers, water and sewage pumping stations, and other public or quasi-public facilities already located in the flood-prone area, to enable them to withstand flood damage, and to facilitate emergency operations;
- (9) Improvement of local drainage to control increased runoff that might increase the danger of flooding to other properties;
- (10) Coordination of plans with neighboring community's flood plain management programs;
- (11) The requirement that all new construction and substantial improvements in areas subject to subsidence be elevated above the base flood level equal to expected subsidence for at least a ten year period;
- (12) For riverine areas, requiring subdividers to furnish delineations for floodways before approving a subdivision;
- (13) Prohibition of any alteration or relocation of a watercourse, except as part of an overall drainage basin plan. In the event of an overall drainage basin plan, provide that the flood carrying capacity within the altered or relocated portion of the watercourse is maintained;

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- (14) Requirement of setbacks for new construction within Zones V1-30, VE, and V on a community's FIRM;
- (15) Requirement of additional elevation above the base flood level for all new construction and substantial improvements within Zones A1-30, AE, V1-30, and VE on the community's FIRM to protect against such occurrences as wave wash and floating debris, to provide an added margin of safety against floods having a magnitude greater than the base flood, or to compensate for future urban development;
- (16) Requirement of consistency between state, regional and local comprehensive plans and flood plain management programs;
- (17) Requirement of pilings or columns rather than fill, for the elevation of structures within flood-prone areas, in order to maintain the storage capacity of the flood plain and to minimize the potential for negative impacts to sensitive ecological areas;
- (18) Prohibition, within any floodway or coastal high hazard area, of plants or facilities in which hazardous substances are manufactured.
- (19) Requirement that a plan for evacuating residents of all manufactured home parks or subdivisions located within flood prone areas be developed and filed with and approved by appropriate community emergency management authorities.

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§ 60.23 Planning considerations for mudslide (i.e., mudflow)-prone areas.

The planning process for communities identified under part 65 of this subchapter as containing Zone M, or which indicate in their applications for flood insurance pursuant to §59.22 of this subchapter that they have mudslide (i.e., mudflow) areas, should include—

- (a) The existence and extent of the hazard;
- (b) The potential effects of inappropriate hillside development, including
- (1) Loss of life and personal injuries,

- (2) Public and private property losses, costs, liabilities, and exposures resulting from potential mudslide (i.e., mudflow) hazards;
- (c) The means of avoiding the hazard including the (1) availability of land which is not mudslide (i.e., mudflow)-prone and the feasibility of developing such land instead of further encroaching upon mudslide (i.e., mudflow) areas, (2) possibility of public acquisition of land, easements, and development rights to assure the proper development of hillsides, and (3) advisability of preserving mudslide (i.e., mudflow) areas as open space;
- (d) The means of adjusting to the hazard, including the (1) establishment by ordinance of site exploration, investigation, design, grading, construction, filing, compacting, foundation, sewerage, drainage, subdrainage, planting, inspection and maintenance standards and requirements that promote proper land use, and (2) provision for proper drainage and subdrainage on public property and the location of public utilities and service facilities, such as sewer, water, gas and electrical systems and streets in a manner designed to minimize exposure to mudslide (i.e., mudflow) hazards and prevent their aggravation;
- (e) Coordination of land use, sewer, and drainage regulations and ordinances with fire prevention, flood plain, mudslide (i.e., mudflow), soil, land, and water regulation in neighboring communities;
- (f) Planning subdivisions and other developments in such a manner as to avoid exposure to mudslide (i.e., mudflow) hazards and the control of public facility and utility extension to discourage inappropriate development;
- (g) Public facility location and design requirements with higher site stability and access standards for schools, hospitals, nursing homes, orphanages, correctional and other residential institutions, fire and police stations, communication centers, electric power transformers and substations, water and sewer pumping stations and any other public or quasi-public institutions located in the mudslide (i.e., mudflow) area to enable them to withstand mudslide (i.e., mudflow) damage