

## **§ 17-41. SPECIFIC FLOOD PLAIN REQUIREMENTS.**

### **§ 17-41.1. Preservation of Natural Land.**

- a. It is hereby found that natural flood plain display complex intimate relationships among streams, periodic flooding, soils, vegetation, fish and wildlife and that periodic flooding of lowland areas, marshes and swamps adjacent to stream channels produces a rich physical-chemical environment for many living organisms. It is further found that flood plains contain biological communities which are among the most productive of natural systems and perform the following functions essential to the natural environment.
  - (1) Passage and storage of storm floodwaters.
  - (2) Removal of sediment loads from streams through deposition.
  - (3) Replenishment of groundwater supplies through soil infiltration.
  - (4) Dissipation of energy of flood flows, thereby reducing downstream destruction.
  - (5) Provide areas of recreational and aesthetic pleasure.
- b. Because of the importance of the natural flood plain as cited above, all natural land within any delineated flood plain, except for land to be developed in accordance with this chapter, shall be preserved in its natural state, and where possible, developed land within the flood plain shall be restored to its natural state so as to duplicate the natural or undeveloped drainage characteristics in terms of runoff and velocity.
- c. Whenever the alteration or relocation of a watercourse is required, the applicant shall notify the Federal Insurance Administrator, New Jersey Department of Environmental Protection, County of Morris, and adjacent communities. The applicant shall assure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained.

### **§ 17-41.2. Performance Standards.**

In reviewing any proposed construction or development, the Board shall be reasonably assured upon evidence submitted by the applicant that any structure, when built or altered, can be occupied without peril to the health or safety of the occupant and that the proposed land use:

- a. Has an inherent low flood-damage potential.
- b. Either acting alone or in combination with existing or future uses, does not obstruct flood flows.
- c. Does not affect adversely the water-carrying or storage capacity of any channel floodway or flood fringe area.

- d. Does not increase erosion or the rate of local runoff.
- e. Does not unduly stress or degrade the natural environment of the flood plain or degrade the quality of surface water or the quality and quantity of groundwaters.
- f. Does not require channel modification or relocation.
- g. Is set forth in Article VIII as a permitted use for that portion of the flood plain where proposed and is not a prohibited use as set forth below.

**§ 17-41.3. Prohibited Uses in Channels, Floodways, and Flood Fringe Areas.**

- a. Channel. Within any channel, structures shall not be erected, expanded or externally altered, and fill, excavation or other improvements or changes shall not be permitted except in connection with stream improvement or stabilization, which improvements or changes shall have the specific approval of the New Jersey Department of Environmental Protection and the Board. The Morris County Planning Board shall receive copies of all exhibits for their review and approval as required.
- b. Floodway.
  - (1) Within any floodway, structures shall not be erected, enlarged, expanded, or externally altered, and fill, excavation, or other improvements or changes shall not be permitted, except in connection with stream improvements or stabilization, which improvement or changes shall have the specific approval of the New Jersey Department of Environmental Protection and the Board. The Morris County Planning Board shall receive copies of all exhibits for their review and approval as required.
  - (2) The accepted practices of soil husbandry and farming, as well as recreational uses in the nature of parks, playgrounds, picnic areas, golf courses and boat landings shall be permitted in accordance with the issuance of a permit as provided in this Article. No material, equipment or vehicles shall be parked or stored in the floodway, even in conjunction with a permitted use.
- c. Flood Fringe Area. Within any flood fringe area, structures other than mobile homes may be constructed, erected, enlarged, expanded, externally altered or modified, and fill, excavation, and other improvements may be permitted in the flood fringe area after receiving specific approval of the Board for a use allowed in Article VIII and further subject to the conditions set forth in this Article.
- d. Upon application for such a permit, the Board shall notify the Borough Environmental Commission and the governing bodies and environmental commissions of other municipalities which may be affected by the proposed use. Such notifications shall include the name and address of the applicant, the location of the proposed use and abbreviated description of the proposed use and announcement as to where and at what times the complete application may be reviewed and to whom and by what date interested parties may communicate their positions concerning the application and any data that they may have developed in

reference to the effects of the proposed use. The Board shall view the application and all information received under this Article.

- e. In reviewing the application and arriving at findings, the Board shall consult with the Borough Engineer and other experts and consider the following criteria in addition to those set forth in this Article.
- (1) The danger to life and property due to increased flood heights or velocities caused by encroachments.
  - (2) The danger that materials may be swept onto other land or downstream to the injury of others.
  - (3) The proposed water supply and sanitation systems and the insulation of these systems from disease, contamination, and unsanitary conditions resulting from flooding.
  - (4) The susceptibility of the proposed use to flood damage and the effects of such damage.
  - (5) The need for a waterfront location.
  - (6) The availability of the alternate locations not subject to flooding.
  - (7) The duration, rate of rise, and sediment transport of floodwaters expected at the site.
  - (8) The safety of access to the property in times of flood for ordinary and emergency vehicles.
  - (9) The extent to which the hydraulic capacity of the floodway will be disrupted.
  - (10) The degree to which the proposed use serves the general public's health, safety, and welfare.
  - (11) The degree to which any aspect of flood chain or plant, animal, fish, or human life processes are affected adversely within or beyond the proposed use area.
  - (12) The degree to which the proposed activity alters natural water flow or water temperature.
  - (13) The degree to which the proposed use provides facilities for the proper handling of litter, trash, refuse, and sanitary and industrial waste.
  - (14) The degree to which irreplaceable land types will be destroyed.
  - (15) The degree to which the natural, scenic and aesthetic values at the proposed development site can be retained.
  - (16) The degree to which materials not subject to major damage by floods are firmly anchored to prevent flotation and/or are readily removable from the area within the time available after flood warning.

- f. If the Board finds that the proposed use would violate or tend to violate the purposes and intent of this Article, the applicant shall be denied.

#### **§ 17-41.4. Conditions of Approval for Permitted Uses.**

If the application will not violate the purposed and intent of this Chapter, the Board may approve the application and impose such conditions as are necessary to promote the public safety, health and welfare, to protect public and private property, wildlife and fisheries and to preserve, protect and enhance the natural environmental of the flood plain.

- a. General Conditions. These conditions may include, but are not limited to, the following:
  - (1) Modification of waste disposal and water supply facilities.
  - (2) Imposition of operational controls, sureties, and deed restrictions.
  - (3) Requirements for construction of stormwater detention facilities, channel modifications, dikes, levees and other protective measures.
  - (4) Installation of an adequate flood-warning system.
  - (5) Postponement of development until such time as protective measures are installed or until the floodway and flood hazard area have been delineated by the Department or the Borough.
- b. Specific Conditions. The following regulations shall apply to all numbered A Zones and, in addition, to all unnumbered A Zones where, in the absence of FIA base flood elevation data. The Planning Board shall obtain, review, and utilize any base flood elevation data available from a federal, state or other source.
  - (1) Where the lowest floor of any new structure is more than two feet above the existing grade at the perimeter of said structure, the site shall be filled. Such fill shall be subject to the following conditions:
    - (a) All fill material shall be well-compacted.
    - (b) The elevation of the fill shall be not more than two feet below the base flood elevation.
    - (c) The elevation of the fill at the perimeter of the structure shall be equal to the elevation of the fill beneath the structure.
    - (d) Fill at the perimeter of the structure shall be stabilized by a retaining wall or by slopes of not greater than four to one (4:1) and shall be protected from erosion.
    - (e) Where fill is stabilized by a retaining wall, said fill shall extend beyond the perimeter of the structure a distance equal to not less than twice the height of the retaining wall or five feet, whichever is the greater.

- (2) All new residential construction, residential additions, and substantial improvements of residential structures within the flood plain shall have the lowest floor (including basement) elevated to not less than six inches above the base flood elevation. For purposes of site plan review and approval, the requirement of six inches above the base flood elevation shall not include a detached garage; nor shall it include a patio, terrace, deck or an unheated and unenclosed porch, provided that any entrance from such a structure to a main structure shall be a minimum of six inches above the base flood elevation. The floor of an attached garage may be not more than two feet below the base flood elevation, provided that the portions of all walls and partitions below the base flood elevation are floodproofed and further provided that any entrance from an attached garage to a main structure shall be a minimum of six inches above the base flood elevation.
- (3) All new nonresidential construction within the flood plain shall have the lowest floor (including basement) elevated to not less than one foot above the base flood elevation or be floodproofed. Floodproofing alone shall not be considered adequate for residences, hospitals, nursing homes, schools, day-care centers and similar uses.
- (4) Floodproofing measures shall be consistent with the base flood elevation for the particular area, flood velocities, durations, rates of rise, hydrostatic and hydrodynamic forces and other similar factors. The Board shall require the applicant to submit a plan or document certified by a registered professional engineer that the floodproofing measures are consistent with the base flood elevation and associated flood factors. Any or all of the following floodproofing measures may be required.
  - (a) Anchorage to resist flotation, collapse, and lateral movement.
  - (b) Installation of watertight doors, bulkheads and shutters or similar devices.
  - (c) Reinforced walls to resist water pressures.
  - (d) Use of paints, membranes or mortars to reduce seepage of water through walls.
  - (e) Addition of weight to structure to resist flotation.
  - (f) Installation of pumps to lower water levels in structures.
  - (g) Pumping facilities or comparable measures for the subsurface drainage systems of buildings to relieve external foundation wall and basement flood pressures.
  - (h) Construction that the resists rupture or collapse caused by water pressure or floating debris.
  - (i) Installation of valves or controls on sanitary and storm drains which will permit the drains to be closed to prevent backup of sewage or stormwaters

into the structure. Gravity drainage of basements may be eliminated by mechanical devices.

- (j) Location of all electrical equipment, circuit and installed equipment electrical appliances in a manner which will assure they are not subject to inundation and flooding.
  - (k) Storage facilities for chemicals, explosives, buoyant materials, flammable, liquids or other toxic or hazardous materials shall be situated above the base flood elevation and shall be floodproofed to prevent flotation of storage containers or damage to storage containers which could result in the escape of toxic materials into the floodwaters.
- (5) Materials prohibited in channels, floodways, and flood fringe areas. No person shall hereafter engage in, cause or other permit persons to engage in prohibited uses within a delineated flood plain. The following uses shall be prohibited:
- (a) Placing, depositing, or dumping any solid waste, garbage, refuse, trash, rubbish, or debris.
  - (b) Dumping or discharging untreated domestic sewage or industrial wastes, either solid or liquid.
  - (c) The storage or disposal of pesticides.
  - (d) The storage or processing of materials that are, in time of flooding, buoyant, flammable or explosive.
  - (e) The storage or processing of hazardous materials that could be injurious in time of flooding to human, animal or plant life.
- (6) Pre-existing nonconforming structures and uses.
- (a) Structures or land uses in any flood plain which existing on or before the effective date of this Chapter may be permitted to continue, subject to the following conditions:
    - [i] If any pre-existing structure is destroyed by any means, including floods, to an extent of 50% or more of its replacement cost at time of destruction, it shall not be reconstructed, except in conformity with the provisions of this Chapter.
    - [ii] No pre-existing structure shall be moved, altered, expanded, changed or enlarged unless the provisions of this Chapter are complied with. This provision does not apply to routine maintenance and repair, provided that such maintenance and repair does not increase the flood damage potential of the structure.
    - [iii] In any portion of the flood plain an existing nonconforming use or structure may be altered or expansion does not increase its ground coverage or flood damage potential.

- (b) If actual construction of a structure is underway on or before the effective date of this Chapter, then such construction may be completed. "Actual construction" is hereby defined to include the placing of construction materials in a permanent position and fastened in a permanent manner. The provisions of § 17-41.4b(6)(a) above shall apply to such structures upon completion of construction.
  - (c) Structures in the floodway abandoned for six consecutive months or longer and structures abandoned for 12 consecutive months or longer in the flood fringe area after the effective date of this chapter shall not qualify as pre-existing uses.
- (7) Flood map. The Board, after proper investigation, survey and public hearing, may recommend amendments to the Department of Housing and Urban Development Flood Map.