

ORDINANCE NO. 82

AN ORDINANCE OF HAYCOCK TOWNSHIP AMENDING ARTICLE II, DEFINITIONS, AND ARTICLE V, SECTION 507, FLOODPLAIN REGULATIONS, OF THE HAYCOCK TOWNSHIP ZONING ORDINANCE OF 1975 AS AMENDED SEPTEMBER 26, 1994, TO COMPLY WITH SUGGESTED PROVISIONS OF THE NATIONAL FLOOD INSURANCE PROGRAM AND THE PENNSYLVANIA FLOODPLAIN MANAGEMENT ACT (1978-166) SECTION 60.3 (d).

ARTICLE I.

The following definitions included within Article II, Definitions, are amended to read as follows:

Section 206 Basement

A story partly underground, but having one-half or more of its height (measured from floor to ceiling) above the average finished grade level of the adjoining ground. A basement shall be counted as a story for the purposes of height measurement or for the determination of square footage or floor area only if the vertical distance between the ceiling and the average level of the adjoining ground is more than four (4) feet, or if it is used for business or dwelling purposes. For the purposes of Section 507, Floodplain Regulations, the term "basement" shall mean any area of the building having its floor below ground level on all sides.

Section 221 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 the storage of materials or equipment.

ARTICLE II.

The following definitions are added to Article II, Definitions:

Section 235.a. Historic Structure

An historic structure is any structure that is:

- a. Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- b. Certified or preliminarily determined by the Secretary of Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

- c. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
  - (1) By an approved state program as determined by the Secretary of Interior, or
  - (2) Directly by the Secretary of the Interior in states without approved programs.

**Section 278 a. Substantial Damage**

Damage from any cause sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed fifty (50) percent or more of the market value of the structure before the damage occurred.

**Section 278 b. Substantial Improvement**

Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or;
- b. Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

**ARTICLE III.**

Section 507, Floodplain Regulations, is amended to read as follows:

**B. FLOODPLAIN PERFORMANCE STANDARDS**

**Section 507 Floodplain Regulations**

No development as defined in Section 221 other than those permitted herein shall hereafter be permitted in an area designated as floodplain as defined in this Ordinance.

**a. Purpose**

The purpose of these provisions is to prevent the loss of property and life, the creation of health and safety hazards, the disruption of commerce and

governmental services, the extraordinary and unnecessary expenditure of public funds for flood protection and relief, and to protect the tax base by:

- (1) Regulating uses, activities, and development which, acting along or in combination with other existing or future uses, activities, and development, will cause unacceptable increases in flood heights, velocities, and frequencies.
- (2) Restricting or prohibiting certain uses, activities and development from locating within areas subject to flooding.
- (3) Requiring all those uses, activities, and development that do occur in flood prone areas to be protected and/or floodproofed against flooding and flood damage.
- (4) Protecting individuals from buying lands and structures which are unsuited for intended purposes because of flood hazards.

b. Warning and Disclaimer of Liability

- (1) The degree of flood protection sought by the provisions of this Ordinance is considered reasonable for regulatory purposes and is based on acceptable engineering methods of study. Larger floods may occur. Flood heights may be increased by man-made or natural causes. This Ordinance does not imply that areas outside the floodplain districts or that land uses permitted within such districts will be free from flooding or flood damages.
- (2) This Ordinance shall not create liability on the part of the municipality or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made thereunder.

c. Establishment of Floodplain

For the purposes at this Ordinance, various floodplain areas are identified which are subject to the provisions of this section. These floodplain areas are:

- (1) Floodway: That portion of the floodplain including the watercourse channel and adjacent land areas which must be reserved to carry the 100-year recurrence-interval flood without cumulatively increasing that flood elevation more than one (1) foot.
- (2) Flood Fringe: That portion of the floodplain which is outside the Floodway.
- (3) Approximate 100 - Year Flood Boundary: That portion of the floodplain as identified in the Flood Insurance Study for which no detailed flood profiles or 100-year-flood elevations have been determined.

- (4) Floodplain Soils: Areas subject to periodic flooding and listed in the Soil Survey of Bucks and Philadelphia Counties Pennsylvania, U.S. Department at Agriculture: Soil Conservation Service, July, 1975, as being "on the floodplain" or "subject to flooding".

The following soil types are floodplain soils:

Alluvial land	Marsh
Alton gravelly loam, flooded	Pope loam
Bowmansville silt loam	Rowland silt loam
Hatboro silt loam	

d. Boundaries of the Floodplain

- (1) The following studies shall be used to identify the floodplain. The study which indicates a floodplain of greater delineation shall be used; unless a detailed study which identifies a floodway and flood-fringe has been prepared, in which case, such detailed study shall be used:
- (a) The Flood Insurance Study prepared by the Federal Insurance Administration and the accompanying Flood Insurance Rate Maps.
  - (b) The Soil Survey of Bucks and Philadelphia Counties, Pennsylvania prepared by the U.S. Department at Agriculture, Soil Conservation Service, July, 1975.
  - (c) A study prepared by a registered engineer expert in the preparation at hydrological studies. Such hydrological studies shall be subject to the review and approval of the Governing Body on recommendation of the municipal engineer.
- (2) The delineation of any of the floodplain areas may be revised by the municipality where natural or man-made changes have occurred and/or more detailed studies conducted or undertaken by the U.S. Army Corps of Engineers, a River Basin Commission, a registered engineer or others of demonstrated qualifications document the need for such change. However, prior to any such change to the Flood Insurance Study, approval must be obtained from the Federal Insurance Administration and the Pennsylvania Department of Community and Economic Development.

e. General Provisions

- (1) The floodplain areas described above shall be overlays to the existing underlying zoning districts and the floodplain provisions shall serve to supplement the underlying zoning provisions. Where there is a conflict between the provisions or requirements of any floodplain requirement and those of the underlying zoning, the more restrictive provisions and/or those pertaining to the floodplain area shall apply. However, in all cases the floodplain requirements shall be met.

- (2) In the event any provision concerning a floodplain regulation is declared inapplicable as a result of any legislative or administrative actions or judicial discretion, the basic underlying zoning district provisions shall remain applicable.
- (3) Under no circumstances shall any use, activity, and/or development adversely affect the capacity of the channels or floodways of any watercourse, drainage ditch, or any other drainage facility or system.
- (4) No encroachment, alteration or improvement of any kind shall be made to any watercourse channel until all adjacent municipalities which may be affected by such action have been notified by the municipality, and until all required permits or approvals have been first obtained from the Department of Environmental Protection, Bureau of Dams, Waterways, and Wetlands.

In addition, the Federal Insurance Administration and Pennsylvania Department of Community, and Economic Development, Strategic Planning and Operations Office, shall be notified by the municipality prior to any alteration or relocation of any watercourse.

- (5) All proposed development shall be in compliance with permits as required by Federal or Commonwealth laws.

f. Approximate 100-Year Flood Boundary and Floodplain Soils Regulations

Any proposed use, development or activity in approximate 100-year flood boundary areas and floodplain soils areas shall be subject to all standards specified in this section for floodway areas unless a hydrological study is prepared thereby identifying the floodway and flood fringe areas. Such study shall be prepared by a registered engineer expert in the preparation of hydrological studies. The hydrological study shall be subject to the review and approval of the Governing Body on recommendation of the municipal engineer.

g. Use Regulations

(1) Uses Permitted by Right

The following uses and activities are permitted in the floodplain provided that they are in compliance with the provisions of the underlying zoning district and are not prohibited by any other ordinance and provided that they do not require structures, fill or storage of materials or equipment, and provided that within the floodway there would be no increase in the one hundred year flood elevation.

- (a) Agricultural uses such as general farming, pasture grazing, outdoor plant nurseries, horticulture, truck farming, forestry, sod farming, and wild crop harvesting.
- (b) Public and private recreational uses and activities such as parks, day camps, picnic grounds, golf courses, boat launching and

swimming areas, hiking, bicycling and horseback riding trails, wildlife and nature preserves, game farms, fish hatcheries, tennis courts, and hunting and fishing areas.

- (c) Yard areas for residential and non-residential uses.
- (d) Temporary uses such as circuses, carnivals, and similar activities.

(2) Uses Permitted by Special Exception

The following uses and activities are permitted in the floodplain by special exception provided that they are in compliance with the provisions of the underlying district and are not prohibited by any other ordinance and provided that all applicable floodplain requirements are met:

- (a) Utilities, public facilities and improvements such as streets, bridges, transmission lines and pipe lines.
- (b) Water related uses and activities.
- (c) Storage of materials and equipment provided they are not buoyant, flammable or explosive, and are not subject to major damage by flooding, and provided such material and equipment is firmly anchored to prevent flotation or movement. Storage of materials and equipment listed in subsection k. hereof shall be prohibited in the floodplain.
- (d) Pervious parking areas.

h. Existing Structures in the Floodplain

A structure or use of a structure or premises which lawfully existed before the enactment of these provisions, but which is not in conformity with these provisions, may be continued subject to the following conditions:

- (1) Existing structures and/or uses may be expanded when permitted as a special exception by the Zoning Hearing Board.
- (2) Existing structures and/or uses located in any floodway shall not be expanded or enlarged unless the effect of the proposed expansion or enlargement on 100 year flood heights is fully offset by accompanying improvements.
- (3) Any increase in area shall not exceed an aggregate of twenty-five (25) percent of the area of the structure and/or use, during the life of the structure and/or use.
- (4) The modification, alteration, reconstruction, or improvement of any kind to an existing structure shall be undertaken only in full compliance with the provisions of this Ordinance and any other applicable ordinances.

i. Special Requirements for Mobile Homes

Mobile homes are defined in Section 245 of this Ordinance. For floodplain management purposes, the term mobile home shall also include park trailers, travel trailers, recreational vehicles and other similar vehicles placed on a site for greater than 180 consecutive days.

- (1) No mobile home shall be permitted in the floodplain except as a nonconforming use which predates the enactment of this Ordinance.
- (2) Within any floodway area, replacement of, or expansion of an existing mobile home shall be prohibited.
- (3) Within any flood fringe area, replacement of or expansion of an existing mobile home shall be:
  - (a) Placed on a permanent foundation;
  - (b) Elevated so that the lowest floor of the mobile home is one and one-half (1.5) feet or more above the elevation of the 100 year flood;
  - (c) Anchored to resist flotation, collapse, or lateral movement.

j. Prohibited Activities in the Floodplain

The commencement of any of the following activities; or the construction, enlargement, or expansion of any structure used, or intended to be used, for any of the following activities shall be prohibited within the floodplain:

- (1) Hospitals
- (2) Nursing Homes
- (3) Jails or Prisons

k. Development Which May Endanger Human Life

Any new or substantially improved structure which will be used for the production or storage of any of the following dangerous materials or substances or which will be used for any activity requiring the maintenance of a supply (more than ten (10) gallons or other comparable volume or any amount of radioactive substances) of any of the dangerous materials or substances, including but not limited to the following and other such materials or substances identified for exclusion from floodplain areas by the agencies of the Commonwealth or the Federal Government, on the premises, shall not be permitted in any identified floodplain area.

- (1) Acetone
- (2) Ammonia
- (3) Benzene
- (4) Calcium carbide

- (5) Carbon disulfide
- (6) Celluloid
- (7) Chlorine
- (8) Hydrochloric acid
- (9) Hydrocyanic add
- (10) Magnesium
- (11) Nitric acid and oxides of nitrogen
- (12) Petroleum products (gasoline, fuel, oil, etc.)
- (13) Phosphorus
- (14) Potassium
- (15) Sodium
- (16) Sulfur and sulfur products
- (17) Pesticides (Including insecticides, fungicides and rodenticides)
- (18) Radioactive substances, insofar as such substances are not otherwise regulated.

I. Special Exceptions and Variances

When development is allowed in the floodplain either by special exception or variance, the following standards shall be met.

- (1) No development shall be permitted in the floodway that would result in any increase in the 100 year flood elevation.
- (2) No new construction or development shall be located within the area measured fifty (50) feet landward from the top-of-bank of any watercourse.
- (3) Elevation Requirements
  - (a) Residential Structures

Within any floodplain area, the lowest floor (including basement) of any building shall be at least one and one-half (1.5) feet above the one-hundred year flood elevation. Fully or partially enclosed spaces below the lowest floor shall be prohibited. A document certified by a registered professional engineer or architect, which certifies that the proposed building is in compliance with the elevation requirements shall be submitted to the Zoning Officer.

(b) Non-residential Structures

- (i.) Within any identified floodplain area, the lowest floor (including basement) of any non-residential structure, or any substantial improvement to an existing non-residential structure, shall be at least one and one-half (1.5 feet) above the one hundred (100) year flood elevation, or be designed and constructed so that the space enclosed by such structure shall remain either completely or essentially dry during any flood up to that height. Fully or partially enclosed spaces below the lowest floor shall be prohibited.
- (ii.) Any non-residential structure, or part thereof, having a lowest floor which is not elevated to at least one and one-half (1.5) feet above the one hundred (100) year flood elevation, shall be floodproofed in a completely or essentially dry manner in accordance with the W1 or W2 space classification standards contained in the publication entitled "Flood-Proofing Regulations" published by the U.S. Army Corps of Engineers (June 1972), or with some equivalent standard. All plans and specifications for such floodproofing shall be accompanied by a statement certified by a registered professional engineer or architect which states that the proposed design and construction are in conformance with the above referenced standards.

(4) Fill

- (a) The cross-sectional area of the floodplain shall not be reduced by more than three (3) percent. The three (3) percent shall be allocated to one and one-half (1.5) percent on either side of the centerline of the watercourse. Such fill shall not cumulatively increase the 100-year flood elevation more than one (1) foot.
- (b) Fill shall consist of soil or small rock materials only; solid waste landfills shall not be permitted.
- (c) Fill shall be compacted to provide the necessary permeability and resistance to erosion, scouring, or settling.
- (d) Fill shall be no steeper than one (1) vertical to two (2) horizontal, unless substantiated data justifying steeper slopes is submitted to, and approved by, the Zoning Officer.
- (e) Fill shall be used to the extent to which it does not adversely affect adjacent properties.

(5) Drainage

Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall insure proper drainage along streets, and provide positive drainage away from buildings. The system shall also be designed to prevent the discharge of excess runoff onto adjacent properties.

(6) Water and Sanitary Sewer Facilities and Systems

(a) All new or replacement water and sanitary sewer facilities and systems shall be located, designed and constructed to minimize or eliminate flood damages and the infiltration of floodwaters.

(b) Sanitary sewer facilities and systems shall be designed prevent the discharge of untreated sewage into floodwaters.

(c) No part of any on-site sewage system shall be located within any identified floodplain area. No expansion of any on-site sewage system now located either wholly or partially in the floodplain shall be permitted.

(7) Other Utilities

All other utilities such as gas lines, electrical and telephone systems shall be located, elevated (where possible) and constructed to minimize the chance of impairment during a flood.

(8) Streets

The finished elevation of all new streets shall be at least one (1) foot above the one hundred (100) year flood elevation.

(9) Storage

No materials that are buoyant, flammable, explosive or, in times of flooding, could be injurious to human, animal, or plant life shall be stored within any identified floodplain area.

(10) Placement of Buildings and Structures

All buildings and structures shall be designed, located, and constructed so as to offer the minimum obstruction to the flow of water and shall be designed to have a minimum effect upon the flow and height of floodwater.

(11) Anchoring

- (a) All buildings and structures shall be firmly anchored in accordance with accepted engineering practices to prevent flotation, collapse, or lateral movement. The zoning officer shall require the applicant to submit the written opinion of a registered professional engineer that the proposed structural design meets this criteria.
- (b) All air ducts, large pipes, storage tanks, and other similar objects or components located below the one hundred (100) year flood elevation shall be securely anchored or affixed to prevent flotation.

(12) Floors, Walls and Ceilings

- (a) Wood flooring used at or below the 100-year flood elevation shall be installed to accommodate a lateral expansion of the flooring, perpendicular to the flooring grain without causing structural damage to the building.
- (b) Plywood used at or below the 100 year flood elevation shall be of a "marine" or water-resistant variety.
- (c) Walls and ceilings at or below the 100-year flood elevation shall be designed and constructed of materials that are water-resistant and will withstand inundation.
- (d) Windows, doors, and other components at or below the 100-year flood elevation shall be made of metal or other water-resistant material.

(13) Paints and Adhesives

- (a) Paints or other finishes used at or below the 100-year flood elevation shall be of a "marine" or water-resistant quality.
- (b) Adhesives used at or below the 100-year flood elevation shall be of a "marine" or water-resistant variety.
- (c) All wooden components (doors, trim, cabinets, etc.) shall be finished with "marine" or water-resistant paint or other finishing materials.

(14) Electrical Components

- (a) Electrical distribution panels shall be at least three (3) feet above the 100-year flood elevation.
- (b) Separate electrical circuits shall serve lower levels and shall be dropped from above.

(15) Equipment

Water heaters, furnaces, air conditioning and ventilating units, and other electrical, mechanical or utility equipment or apparatus shall not be located below the 100-year flood elevation.

(16) Fuel Supply Systems

All gas and oil supply systems shall be designed to prevent the infiltration of floodwaters into the system and discharges from the system into floodwaters. Additional provisions shall be made for the drainage at these systems in the event that floodwater infiltration occurs.

m. Variances

If compliance with any of the requirements of this Section would result in an exceptional hardship for a prospective builder, developer, or landowner, the Zoning Hearing Board may, upon request, grant relief from the strict application of the requirements. Requests for variances shall be considered by the Zoning Hearing Board in accordance with the following:

- (1) No variance shall be granted for any construction, development, use or activity within any floodway that would cause any increase in the one hundred (100) year flood elevation.
- (2) No variance shall be granted for any of the requirements pertaining to Development Which May Endanger Human Life (subsection k.) or Prohibited Activities in the Floodplain (subsection j.).
- (3) If granted, a variance shall involve only the least modification necessary to provide relief.
- (4) In granting any variance, the Zoning Hearing Board shall attach whatever reasonable conditions and safeguards it considers necessary in order to protect the public health, safety, and welfare, and to achieve the objectives of this Ordinance.
- (5) Whenever a variance is granted, the Zoning Hearing Board shall notify the applicant in writing that:
  - (a) The granting of the variance may result in increased premium rates for flood insurance;
  - (b) Such variances may increase the risks to life and property.
- (6) In reviewing any request for a variance, the Zoning Hearing Board shall consider, but not be limited to, the following:
  - (a) That there is good and sufficient cause;

- (b) That failure to grant the variance would result in exceptional hardship to the applicant;
  - (c) That the granting of the variance will neither result in an unacceptable or prohibited increase in flood heights, additional threats to public safety, or extraordinary public expense; nor create nuisances, cause fraud on, or victimize the public, or conflict with any other applicable state statute or regulation, or local ordinance or regulation.
- (7) A complete record of all variance requests and related actions shall be maintained by the municipality. In addition, a report of all variances granted during the year shall be included in the annual report to the Federal Insurance Administration.
- (8) Notwithstanding any of the above, however, all structures shall be designed and constructed so as to have the capability of resisting the 100-year flood.

**ARTICLE IV.**

Should any section or any provision of this Ordinance be declared by any Court of competent jurisdiction to be invalid, illegal, or unconstitutional, such decision shall have no effect on the validity of this Ordinance as a whole, or any part thereof.

**ARTICLE V.**

Any ordinance or resolution or part of any ordinance or resolution inconsistent with the provisions of this Ordinance shall be repealed to the extent of such inconsistency.

SO ORDAINED this 3<sup>RD</sup> day of MAY, A.D. 1999.

HAYCOCK TOWNSHIP  
BOARD OF SUPERVISORS

*James W. Ball*

*Michael C. Pennington*

*Lawrence Winters*