

CHAPTER 5.30  
FLOOD PLAIN MANAGEMENT

**SECTION 1 – STATUTORY AUTHORITY, FINDINGS OF FACT AND PURPOSE**

5.30.011 STATUTORY AUTHORIZATION: The Legislature of the State of Iowa has in Chapter 331, Code of Iowa, as amended, delegated the power to counties to exercise any power and perform any function it deems appropriate to protect and preserve the rights, privileges and property of the county or of its residents, and to preserve and improve the peace, safety, health, welfare, comfort and convenience of its residents.

5.30.012 FINDINGS OF FACT:

.01 The flood hazard areas of Pottawattamie County, Iowa are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base all of which adversely affect the public health, safety and general welfare of the community.

.02 These flood losses, hazards, and related adverse effects are caused by: (i) The occupancy of flood hazard areas by uses vulnerable to flood damages which create hazardous conditions as a result of being inadequately elevated or otherwise protected from flooding and (ii) the cumulative effect of obstructions on the flood plain causing increases in flood heights and velocities.

5.30.013 STATEMENT OF PURPOSE:

It is the purpose of this Chapter to protect and preserve the rights, privileges and property of Pottawattamie County, Iowa and its residents and to preserve and improve the peace, safety, health, welfare, and comfort and convenience of its residents by minimizing those flood losses described in Section 5.30.012.01 of this Chapter with provisions designed to:

.01 Restrict or prohibit uses which are dangerous to health, safety or property in times of flood or which cause excessive increases in flood heights or velocities.

.02 Require that uses vulnerable to floods, including public facilities which serve such uses, be protected against flood damage at the time of initial construction or substantial improvement.

.03 Protect individuals from buying lands which may not be suited for intended purposes because of flood hazard.

.04 Assure that eligibility is maintained for property owners in the community to purchase flood insurance through the National Flood Insurance Program.

**SECTION 2 – GENERAL PROVISIONS**

5.30.021 LANDS TO WHICH CHAPTER APPLY: The provisions of this Chapter shall apply to all lands and uses which have significant flood hazards. The Flood Insurance Rate Maps (FIRM), dated April 16, 2013 which were prepared as part of the Pottawattamie County, Iowa, Flood Insurance Study, shall be used to identify such flood hazard areas and all areas shown thereon to be within the boundaries of the 100-year flood shall be considered as having significant flood hazards. Where uncertainty exists with respect to the precise location of the 100-year flood boundary, the location shall be determined on the basis of the 100-year flood elevation at the particular site in question. The Pottawattamie County, Iowa, Insurance Study is hereby adopted by reference and is made a part of this Chapter for the purpose of administering flood plain management regulations.

- 5.30.022 COMPLIANCE: No structure or land shall hereafter be used and no structure shall be located, extended, converted or structurally altered without full compliance with the terms of this Chapter and other applicable regulations which apply to uses within the jurisdiction of this Chapter.
- 5.30.023 ABROGATION AND GREATER RESTRICTIONS: It is not intended by this Chapter to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this Chapter imposes greater restrictions, the provision of this Chapter shall prevail. All other ordinances inconsistent with this Chapter are hereby repealed to the extent of the inconsistency only.
- 5.30.024 INTERPRETATION: In their interpretation and application, the provisions of this Chapter shall be held to be minimum requirements and shall be liberally construed in favor of the governing body and shall not be deemed a limitation or repeal of any other powers granted by State statutes.
- 5.30.025 WARNING AND DISCLAIMER OF LIABILITY: The standards required by this Chapter are considered reasonable for regulatory purposes. This Chapter does not imply that areas outside the designated areas of significant flood hazard will be free from flooding or flood damages. This Chapter shall not create liability on the part of Pottawattamie County, Iowa, or any officer or employee thereof for any flood damages that from reliance on this Chapter or any administrative decision lawfully made there under.
- 5.30.026 SEVERABILITY: If any section, clause, provision or portion of this Chapter is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this Chapter shall not be affected thereby.

### **SECTION 3 - DEFINITIONS**

- 5.30.031 Unless specifically defined below, words or phrases used in this Chapter shall be interpreted so as to give them the meaning they have in common usage and to give this Chapter its most reasonable application.
  - .01 FIVE HUNDRED (500) YEAR FLOOD – A flood, the magnitude of which has a two-tenths (0.2) percent chance of being equaled or exceeded in any given year or which, on average, will be equaled or exceeded at least once every five hundred (500) years. (*Ordinance #2021-10/01-03-2022*)
  - .02 APPURTENANT STRUCTURE – A structure which is on the same parcel of the property as the principal structure to be insured and the use of which is incidental to the use of the principal structure. (*Ordinance #2021-10/01-03-2022*)
  - .03 BASE FLOOD - The flood having one (1) percent chance of being equaled or exceeded in any given year. (See 100-year flood).
  - .04 BASE FLOOD ELEVATION - The elevation floodwaters would reach at a particular site during the occurrence of a base flood event. (*Ordinance #2021-10/01-03-2022*)
  - .05 BASEMENT - Any enclosed area of a building which has its floor or lowest level below ground level (subgrade) on all sides. Also see "lowest floor."
  - .06 DEVELOPMENT - Any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.

- .07 EXISTING CONSTRUCTION - Any structure for which the "start of construction" commenced before the effective date of the community's Flood Insurance Rate Map. May also be referred to as "existing structure".
- .08 EXISTING FACTORY-BUILT HOME PARK OR SUBDIVISION - A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the flood plain management regulations adopted by the community.
- .09 EXPANSION OF EXISTING FACTORY-BUILT HOME PARK OR SUBDIVISION - The preparation of additional sites by the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).
- .10 FACTORY-BUILT HOME - Any structure, designed for residential use, which is wholly or in substantial part, made, fabricated, formed or assembled in manufacturing facilities for installation or assembly and installation, on a building site. For the purpose of this Chapter factory-built homes include mobile homes, manufactured homes and modular homes and also includes "recreational vehicles" which are placed on a site for greater than 180 consecutive days and not fully licensed for and ready for highway use.
- .11 FACTORY-BUILT HOME PARK - A parcel or contiguous parcels of land divided into two or more factory-built home lots for sale or lease.
- .12 FLOOD - A general and temporary condition of partial or complete inundation of normally dry land areas resulting from the overflow of streams or rivers or from the unusual and rapid runoff of surface waters from any source.
- .13 FLOOD ELEVATION - The elevation floodwaters would reach at a particular site during the occurrence of a specific flood. For instance, the 100-year flood elevation is the elevation of flood waters related to the occurrence of the 100-year flood.
- .14 FLOOD INSURANCE RATE MAP (FIRM) - The official map prepared as part of (but published separately from) the Flood Insurance Study which delineates both the flood hazard areas and the risk premium zones applicable to the community.
- .15 FLOOD INSURANCE STUDY – An examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations. (*Ordinance #2021-10/01-03-2022*)
- .16 FLOOD PLAIN - Any land area susceptible to being inundated by water as a result of a flood.
- .17 FLOOD PLAIN MANAGEMENT - An overall program of corrective and preventive measures for reducing flood damages and promoting the wise use of flood plains, including but not limited to emergency preparedness plans, flood control works, floodproofing and flood plain management regulations.
- .18 FLOODPROOFING - Any combination of structural and nonstructural additions, changes, or adjustments to structures, including utility and sanitary facilities, which will reduce or eliminate flood damage to such structures.
- .19 FLOODWAY - The channel of a river or stream and those portions of the flood plains adjoining the channel, which are reasonably required to carry and discharge flood waters or flood flows so that confinement of flood flows to the floodway area will not cumulatively increase the water surface elevation of the base flood by more than one (1) foot.

.20 FLOODWAY FRINGE - Those portions of the flood plain, other than the floodway, which can be filled, leveed, or otherwise obstructed without causing substantially higher flood levels or flow velocities.

.21 HIGHEST ADJACENT GRADE – The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure. (*Ordinance #2021-10/01-03-2022*)

.22 HISTORIC STRUCTURE - Any structure that is:

- a. Listed individually in the National Register of Historic Places, maintained by the Department of Interior, or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing of the National Register;
- b. Certified or preliminarily determined by the Secretary of the 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 the Interior; or,
- d. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified by either i) an approved state program as determined by the Secretary of the Interior or ii) directly by the Secretary of the Interior in states without approved programs.

.23 LOWEST FLOOR - The floor of the lowest enclosed area in a building including a basement except when all the following criteria are met:

- a. The enclosed area is designed to flood to equalize hydrostatic pressure during floods with walls or openings that satisfy the provisions of Section 5.30.041.04.A of this Chapter and
- b. The enclosed area is unfinished (not carpeted, drywalled, etc.) and used solely for low damage potential uses such as building access, parking or storage, and
- c. Machinery and service facilities (e.g., hot water heater, furnace, electrical service) contained in the enclosed area are located at least one (1) foot above the 100-year flood level, and
- d. The enclosed area is not a "basement" as defined in this section.

In cases where the lowest enclosed area satisfies criteria a, b, c, and d above, the lowest floor is the floor of the next highest enclosed area that does not satisfy the criteria above.

.24 MAXIMUM DAMAGE POTENTIAL DEVELOPMENT - Hospitals and like institutions; buildings or building complexes containing documents, data, or instruments of great public value; buildings or building complexes containing materials dangerous to the public or fuel storage facilities; power installations needed in emergency or other buildings or building complexes similar in nature or use. (*Ordinance #2021-10/01-03-2022*)

.25 MINOR PROJECTS – Small development activities (except for filling, grading and excavating) valued at less than \$500.

.26 NEW CONSTRUCTION - (new buildings, factory-built home parks) - Those structures or development for which the start of construction commenced on or after April 4, 1983.

- .27 NEW FACTORY-BUILT HOME PARK OR SUBDIVISION - A factory-built home park or subdivision for which the construction of facilities for servicing the lots on which the factory-built homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the effective date of flood plain management regulations adopted by the community.
- .28 ONE HUNDRED (100) YEAR FLOOD - A flood, the magnitude of which has a one (1) percent chance of being equaled or exceeded in any given year or which, on the average, will be equaled or exceeded a least once every one hundred (100) years.
- .29 RECREATIONAL VEHICLE - A vehicle which is:
- a. Built on a single chassis;
  - b. Four hundred (400) square feet or less when measured at the largest horizontal projection;
  - c. Designed to be self-propelled or permanently towable by a light duty truck; and
  - d. Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel, or seasonal use.
- .30 ROUTINE MAINTENANCE OF EXISTING BUILDINGS AND FACILITIES. Repairs necessary to keep a structure in a safe and habitable condition that do not trigger a building or floodplain development permit, provided they are not associated with a general improvement of the structure or repair of a damaged structure. Such repairs include:
- a. Normal maintenance of structures such as re-roofing, replacing roofing tiles and replacing siding;
  - b. Exterior and interior painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work;
  - c. Basement sealing;
  - d. Repairing or replacing damaged or broken window panes;
  - e. Repairing plumbing systems, electrical systems, heating or air conditioning systems and repairing wells or septic systems.
- .31 SPECIAL FLOOD HAZARD AREA - The land within a community subject to the "100-year flood". This land is identified as Zone A, AE, A1-A30, AO and AH on the community's Flood Insurance Rate Map.
- .32 START OF CONSTRUCTION - Includes substantial improvement, and means the date the development permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement, was within 180 days of the permit date. The actual start means either the first placement or permanent construction of a structure on a site, such as pouring of a slab or footings, the installation of pile, the construction of columns, or any work beyond the stage of excavation; or the placement of a factory-built home on a foundation. Permanent construction does not include land preparation, such as clearing, grading and filling; nor does it include the installation of streets and/or walkways; nor does it include excavation for a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings such as garages or sheds not occupied as dwelling units or not part of the main structure. For a

substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of the building, whether or not that alteration affects the external dimensions of the building.

.33 STRUCTURE - Anything constructed or erected on the ground or attached to the ground, including, but not limited to, buildings, factories, sheds, cabins, factory-built homes, storage tanks, and other similar uses.

.34 SUBSTANTIAL DAMAGE - Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damage condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred. Substantial damage also means flood-related damages sustained by a structure on two separate occasions during a 10-year period for which the cost of repairs at the time of such flood event, on the average, equals or exceeds 25 percent of the market value of the structure before the damage occurred. Volunteer labor and donated materials shall be included in the estimated cost of repair. (*Ordinance #2021-10/01-03-2022*)

.35 SUBSTANTIAL IMPROVEMENT - Any improvement to a structure which satisfies either of the following criteria:

1. Any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure either (i) before the "start of construction" of the improvement, or (ii) if the structure has been "substantially damaged" and is being restored, before the damage occurred. The term does not, however, include any project for improvement of a structure to comply with existing state or local health, sanitary, or safety code specifications which are solely necessary to assure safe conditions for the existing use. The term also does not include any alteration of an "historic structure", provided the alteration will not preclude the structure's designation as an "historic structure".
2. Any addition which increases the original floor area of a building by 25 percent or more. All additions constructed after April 4, 1983 shall be added to any proposed addition in determining whether the total increase in original floor space would exceed 25 percent.

.36 VARIANCE - A grant of relief by a community from the terms of the flood plain management regulations.

.37 VIOLATION - The failure of a structure or other development to be fully compliant with the community's flood plain management regulations.

#### **SECTION 4 – FLOOD PLAIN MANAGEMENT STANDARDS**

5.30.041 GENERAL FLOOD PLAIN STANDARDS: All uses must be consistent with the need to minimize flood damage and meet the following applicable performance standards. Where 100-year flood data has not been provided in the Flood Insurance Study, the Iowa Department of Natural Resources shall be contacted to determine (i) whether the land involved is either wholly or partly within the floodway or floodway fringe and (ii) the 100 year flood level. The applicant will be responsible for providing the Department of Natural Resources with sufficient technical information to make such determination.

.01 All development within the areas of significant flood hazard shall:

- A. Be consistent with the need to minimize flood damage.
- B. Use construction methods and practices that will minimize flood damage.

- C. Use construction materials and utility equipment that are resistant to flood damage.
  - D. Obtain all other necessary permits from federal, state and local governmental agencies including approval when required from the Iowa Department of Natural Resources.
- .02 Residential buildings - All new or substantially improved residential structures shall have the lowest floor, including basement, elevated a minimum of one (1) foot above the 100-year flood level. Construction shall be upon compacted fill which shall, at all points, be no lower than 1.0 ft. above the 100-year flood level and extend at such elevation at least 18 feet beyond the limits of any structure erected thereon. Alternate methods of elevating (such as piers) may be allowed subject to favorable consideration by the County Board of Supervisors, where existing topography, street grades, or other factors preclude elevating by fill. In such cases, the methods used must be adequate to support the structure as well as withstand the various forces and hazards associated with flooding.

All new and substantially improved residential structures shall be provided with a means of access which will be passable by wheeled vehicles during the 100-year flood.

- .03 Non-residential buildings - All new or substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the 100-year flood level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 100-year flood; and that the structure, below the 100-year flood level is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to North American Vertical Datum) to which any structures are floodproofed shall be maintained by the Administrator.

- .04 All new and substantially improved structures:

- A. Fully enclosed areas below the "lowest floor" (not including basements) that are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or meet or exceed the following minimum criteria:

- (1) A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
- (2) The bottom of all openings shall be no higher than one foot above grade.
- (3) Openings may be equipped with screens, louvers, valves, or other coverings or devices provided they permit the automatic entry and exit of floodwaters.

The enclosed areas below the "lowest floor" (not including basements) shall be used solely for parking vehicles, limited low damage storage and/or access to the building.

The property owner shall complete, sign and record with the Pottawattamie County Recorder's Office, the Pottawattamie County Non-Conversion Agreement furnished by the Administrator.

- B. New and substantially improved structures must be designed (or modified) and adequately anchored to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.

- C. New and substantially improved structures must be constructed with electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities (including ductwork) elevated or floorproofed to at least one (1) foot above the 100-year flood level.
- D. Maximum Damage Potential Development – All new or substantially improved maximum damage potential development shall have the lowest floor (including basement) elevated a minimum of one (1) foot above the elevation of the 500-year flood, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the 500-year flood; and that the structure, below the 500-year flood elevation is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (in relation to North American Vertical Datum 1988) to which any structures are floodproofed shall be maintained by the Administrator. Where 500-year flood elevation data has not been provided in the Flood Insurance Study, the Iowa Department of Natural Resources shall be contacted to compute such data. The applicant will be responsible for providing the Department of Natural Resources with sufficient technical information to make such determinations. (*Ordinance #2021-10/01-03-2022*)

.05 Factory-built homes:

- A. All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be elevated on a permanent foundation such that the lowest floor of the structure is a minimum of one (1) foot above the 100-year flood level.
- B. All factory-built homes, including those placed in existing factory-built home parks or subdivisions, shall be anchored to resist flotation, collapse, or lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors.

.06 Utility and Sanitary Systems:

- A. On-site waste disposal and water supply systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
- B. All new and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities (other than on-site systems) shall be provided with a level of flood protection equal to or greater than one (1) foot above the 100-year flood elevation.
- C. New or replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system. Water supply treatment facilities (other than on-site systems) shall be provided with a level of protection equal to or greater than one (1) foot above the 100-year flood elevation.
- D. Utilities such as gas or electrical systems shall be located and constructed to minimize or eliminate flood damage to the system and the risk associated with such flood damaged or impaired systems.



- .07 Storage of materials and equipment that are flammable, explosive or injurious to human, animal or plant life is prohibited unless elevated a minimum of one (1) foot above the 100-year flood level. Other material and equipment must either be similarly elevated or (i) not be subject to major flood damage and be anchored to prevent movement due to flood waters or (ii) be readily removable from the area within the time available after flood warning.
- .08 Flood control structural works such as levees, flood walls, etc. shall provide, at a minimum, protection from a 100-year flood with a minimum of 3 ft. of design freeboard and shall provide for adequate interior drainage. In addition, structural flood control works shall be approved by the Department of Natural Resources.
- .09 Watercourse alterations or relocations must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
- .10 Subdivisions (including factory-built home parks and subdivisions) shall be consistent with the need to minimize flood damages and shall have adequate drainage provided to reduce exposure to flood damage. Development associated with subdivision proposals (including the installation of public utilities) shall meet the applicable performance standards of this Chapter. Subdivision proposals intended for residential use shall provide all lots with a means of access which will be passable by wheeled vehicles during the 100-year flood. Proposals for subdivisions greater than five (5) acres or fifty (50) lots (whichever is less) shall include 100-year flood elevation data for those areas located within the area of significant flood hazard.
- .11 Accessory Structures to Residential Uses(*Ordinance #2021-10/01-03-2022*):
- A. Detached garages, sheds, and similar structures that are incidental to a residential use are exempt from the 100-year flood elevation requirements where the following criteria are satisfied.
- (1) The structure shall be designed to have low flood damage potential. Its size shall not exceed 600 sq. ft. in size. Those portions of the structure located less than 1 foot above the 100-year flood elevation must be constructed of flood-resistant materials.
  - (2) The structure shall be used solely for low flood damage potential purposes such as vehicle parking and limited storage. The structure shall not be used for human habitation.
  - (3) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
  - (4) The structure shall be firmly anchored to resist flotation, collapse and lateral movement.
  - (5) The structure's service facilities such as electrical and heating equipment shall be elevated or floodproofed to at least one foot above the 100-year flood elevation.
  - (6) The structure's walls shall include openings that satisfy the provisions of Section 4, 51.30.041.04A of this Ordinance.
- B. Exemption from the 100-year flood elevation requirements for such a structure may result in increased premium rates for flood insurance coverage of the structure and its contents.
- .12 Recreational Vehicles

- A. Recreational vehicles are exempt from the requirements of Section 5.30.041.05 of this Chapter regarding anchoring and elevation of factory-built homes when the following criteria are satisfied.
  - (1) The recreational vehicle shall be located on the site for less than 180 consecutive days, and,
  - (2) The recreational vehicle must be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system and is attached to the site only by quick disconnect type utilities and security devices and has no permanently attached additions.
- B. Recreational vehicles that are located on the site for more than 180 consecutive days or are not ready for highway use must satisfy requirements of Section 5.30.041.05 of this Chapter regarding anchoring and elevation of factory-built homes.

.13 Pipeline river and stream crossings shall be buried in the streambed and banks, or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering.

5.30.042 SPECIAL FLOODWAY PROVISIONS: In addition to the General Flood Plain Standards, uses within the floodway must meet the following applicable standards. The floodway is that portion of the flood plain which must be protected from developmental encroachment to allow the free flow of flood waters. Where floodway data has been provided in the Flood Insurance Study, such data shall be used to define the floodway. Where no floodway data has been provided, the Department of Natural Resources shall be contacted to provide a floodway delineation. The applicant will be responsible for providing the Department of Natural Resources with sufficient technical information to make such determination.

- .01 No use shall be permitted in the floodway that would result in any increase in the 100-year flood level. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
- .02 All uses within the floodway shall:
  - A. Be consistent with the need to minimize flood damage.
  - B. Use construction methods and practices that will minimize flood damage.
  - C. Use construction materials and utility equipment that are resistant to flood damage.
- .03 No use shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch or any other drainage facility or system.
- .04 Structures, buildings and sanitary and utility systems, if permitted, shall meet the applicable General Flood Plain standards and shall be constructed or aligned to present the minimum possible resistance to flood flows.
- .05 Buildings, if permitted, shall have a low flood damage potential and shall not be for human habitation.
- .06 Storage of materials or equipment that are buoyant, flammable, explosive or injurious to human, animal or plant life is prohibited. Storage of other material may be allowed if readily removable from the floodway within the time available after flood warning.

- .07 Watercourse alterations or relocations (channel changes and modifications) must be designed to maintain the flood carrying capacity within the altered or relocated portion. In addition, such alterations or relocations must be approved by the Department of Natural Resources.
- .08 Any fill allowed in the floodway must be shown to have some beneficial purpose and shall be limited to the minimum amount necessary.
- .09 Pipeline river or stream crossings shall be buried in the streambed and banks or otherwise sufficiently protected to prevent rupture due to channel degradation and meandering or due to the action of flood flows.

5.30.043 **SPECIAL PROVISIONS FOR SHALLOW FLOODING AREAS:** In addition to the General Flood Plain Standards, uses within shallow flooding areas must meet the following applicable standards.

- .01 In shallow flooding areas designated as an AO Zone on the Flood Insurance Rate Map (FIRM), the minimum floodproofing/flood protection elevation shall be equal to the number of feet as specified on the FIRM (or a minimum of 2.0 ft. if no number is specified) above the highest natural grade adjacent to the structure.
- .02 In shallow flooding areas designated as an AH Zone on the Flood Insurance Rate Map, the minimum floodproofing/flood protection elevation shall be equal to the elevation as specified on the FIRM.
- .03 In shallow flooding areas designated as either an AO or AH on the Flood Insurance Rate Map, drainage paths are required around structures on slopes to adequately guide water away from structures.

**SECTION 5 - ADMINISTRATION**

5.30.051 **APPOINTMENT, DUTIES AND RESPONSIBILITIES OF FLOOD PLAIN ADMINISTRATOR:**

- .01 The Director of Planning and Development of Pottawattamie County, Iowa, is hereby appointed to implement and administer the provisions of this Chapter and will herein be referred to as the Administrator.
- .02 Duties of the Administrator shall include, but not necessarily be limited to the following:
  - A. Review all flood plain development permit applications to assure that the provisions of this Chapter will be satisfied.
  - B. Review flood plain development applications to assure that all necessary permits have been obtained from federal, state and local governmental agencies including approval when required from the Department of Natural Resources for flood plain construction.
  - C. Record and maintain a record of the elevation (in relation to North American Vertical Datum) of the lowest floor (including basement) of all new or substantially improved structures.
  - D. Record and maintain a record of the elevation (in relation to North American Vertical datum) to which all new or substantially improved structures have been floodproofed.

- E. Notify adjacent communities/counties and the Department of Natural Resources prior to any proposed alteration or relocation of a watercourse and submit evidence of such notifications to the Federal Emergency Management Agency.
- F. Keep a record of all permits, appeals and such other transactions and correspondence pertaining to the administration of this Chapter.

5.30.052 FLOOD PLAIN DEVELOPMENT PERMIT:

- .01 Permit Required - A Flood Plain Development Permit issued by the Administrator shall be secured prior to any flood plain development (any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, excavation or drilling operations), including the placement of factory-built homes.
- .02 Application for Permit - Application shall be made on forms furnished by the Administrator and shall include the following:
  - A. Description of the work to be covered by the permit for which application is to be made.
  - B. Description of the land on which the proposed work is to be done (i.e., lot, block, track, street address or similar description) that will readily identify and locate the work to be done.
  - C. Indication of the use or occupancy for which the proposed work is intended.
  - D. Elevation of the 100-year flood.
  - E. Elevation (in relation to North American Vertical Datum) of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.
  - F. For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
  - G. Such other information as the Administrator deems reasonably necessary (e.g., drawings or a site plan) for the purpose of this Chapter.
- .03 Action on Permit Application - The Administrator shall, within a reasonable time, make a determination as to whether the proposed flood plain development meets the applicable standards of this Chapter and shall approve or disapprove the application. For disapprovals, the applicant shall be informed, in writing, of the specific reasons therefore. The Administrator shall not issue permits for variances except as directed by the County Board of Supervisors.
- .04 Construction and Use to be as Provided in Application and Plans - Flood Plain Development Permits based on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications and no other use, arrangement or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of this Chapter. The applicant shall be required to submit certification by a professional engineer or land surveyor, as appropriate, registered in the State of Iowa, that the finished fill, building floor elevations, floodproofing, or other flood protection measures were accomplished in compliance with the provisions of this Chapter, prior to the use or occupancy of any structure.

5.30.053 Variance

- .01 The County Board of Supervisors may authorize upon request in specific cases such variances from the terms of this Chapter that will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of this Chapter will result in unnecessary hardship. Variances granted must meet the following applicable standards.
- A. Variances shall only be granted upon: (i) a showing of good and sufficient cause, (ii) a determination that failure to grant the variance would result in exceptional hardship to the applicant, and (iii) a determination that the granting of the variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local codes or ordinances.
  - B. Variances shall not be issued within any designated floodway if any increase in flood levels during the 100-year flood would result. Consideration of the effects of any development on flood levels shall be based upon the assumption that an equal degree of development would be allowed for similarly situated lands.
  - C. Variances shall only be granted upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
  - D. In cases where the variance involves a lower level of flood protection for buildings than what is ordinarily required by this Chapter, the applicant shall be notified in writing over the signature of the Administrator that: (i) the issuance of a variance will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage and (ii) such construction increases risks to life and property.
  - E. All variances granted shall have the concurrence or approval of the Department of Natural Resources.
- .02 Factors Upon Which the Decision of the Board of Supervisors Shall be Based - In passing upon applications for Variances, the Board shall consider all relevant factors specified in other sections of this Chapter and:
- A. The danger to life and property due to increased flood heights or velocities caused by encroachments.
  - B. The danger that materials may be swept on to other land or downstream to the injury of others.
  - C. The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.
  - D. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.
  - E. The importance of the services provided by the proposed facility to the County.
  - F. The requirements of the facility for a flood plain location.
  - G. The availability of alternative locations not subject to flooding for the proposed use.
  - H. The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

- I. The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.
  - J. The safety of access to the property in times of flood for ordinary and emergency vehicles.
  - K. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwater expected at the site.
  - L. The cost of providing governmental services during and after flood conditions, including maintenance and repair of public utilities (sewer, gas, electrical and water systems), facilities, streets and bridges.
  - M. Such other factors which are relevant to the purpose of this Chapter.
- .03 Conditions Attached to Variances - Upon consideration of the factors listed above, the Board of Supervisors may attach such conditions to the granting of variances as it deems necessary to further the purpose of this Chapter. Such conditions may include, but not necessarily be limited to:
- A. Modification of waste disposal and water supply facilities.
  - B. Limitation of periods of use and operation.
  - C. Imposition of operational controls, sureties, and deed restrictions.
  - D. Requirements for construction of channel modifications, dikes, levees and other protective measures, provided such are approved by the Department of Natural Resources and are deemed the only practical alternative to achieving the purpose of this Chapter.
  - E. Floodproofing measures.

## **SECTION 6 – NONCONFORMING USES**

- 5.30.061 A structure or the use of a structure or premises which was lawful before August 9, 1993 or amendment of this Chapter, but which is not in conformity with the provisions of this Chapter, may be continued subject to the following conditions:
- .01 If such use is discontinued for six (6) consecutive months, any future use of the building premises shall conform to this Chapter.
  - .02 Uses or adjuncts thereof that are or become nuisances shall not be entitled to continue as nonconforming uses.
- 5.30.062 If any nonconforming use or structure is destroyed by any means, including flood, it shall not be reconstructed if the cost is more than fifty (50) percent of the market value of the structure before the damage occurred, unless it is reconstructed in conformity with the provisions of this Chapter. This limitation does not include the cost of any alteration to comply with existing state or local health, sanitary, building or safety codes or regulations or the cost of any alteration of a structure listed on the National Register of Historic Places, provided that the alteration shall not preclude its continued designation.

## **SECTION 7 – PENALTIES FOR VIOLATION**

5.30.071 The penalty for violating the provisions of this Chapter shall be as set forth in Chapter 1.75.

### **SECTION 8 - AMENDMENTS**

5.30.081 The regulations and standards set forth in this Chapter may from time to time be amended, supplemented, changed, or repealed. No amendment, supplement, change, or modification shall be undertaken without prior approval of the Department of Natural Resources.