

CHAPTER 26 – FLOOD PLAIN REGULATIONS

26.1.1 Legal Authority, Findings of Fact and Purpose

a. Legal Authority

Iowa Code Chapter 331, as amended, grants counties the authority, except as expressly limited by the Constitution and if not inconsistent with the laws of the General Assembly, 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.

b. Findings of Fact

- (1) The flood hazard areas of Mills County 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 peace, safety, health, welfare, comfort, and convenience of its residents.
- (2) These flood losses, hazards, and related adverse effects are caused by:
 - (a) 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
 - (b) The cumulative effect of obstructions on the flood plain causing increases in flood heights and velocities.
- (3) This Ordinance relies upon engineering methodology for analyzing flood hazards which is consistent with the standards established by the Department of Natural Resources.

c. Statement of Purpose

It is the purpose of this Ordinance to protect and preserve the rights, privileges and property of Mills County 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 26.1.1(b)(2), above, with provisions designed to:

- (1) Reserve sufficient flood plain area for the conveyance of flood flows so that flood heights and velocities will not be increased substantially.

- (2) 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.
- (3) Require that uses vulnerable to floods, including public utilities which serve such uses, be protected against flood damage at the time of initial construction.
- (4) Protect individuals from buying lands that are unsuited for intended purposes because of flood hazard.
- (5) Assure that eligibility is maintained for property owners in the County to purchase flood insurance through the National Flood Insurance Program.

26.1.2 General Provisions

a. Lands to Which Regulations Apply

These flood plain management regulations shall apply to all lands and uses which have significant flood hazards. The Flood Boundary and Floodway Map and the Flood Insurance Rate Map, dated September 16, 1982, which were prepared as part of the Mills Flood Insurance Study, shall be used to identify such flood hazard areas and all area 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 Mills Flood Insurance Study is hereby adopted by reference and is made a part of this Ordinance for the purpose of administering flood plain management regulations.

b. 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 Ordinance and other applicable regulations which apply to uses within the jurisdiction of this Ordinance.

c. Abrogation and Greater Restrictions

It is not intended by this Ordinance to repeal, abrogate or impair any existing easements, covenants, or deed restrictions. However, where this Ordinance imposes greater restrictions, the provision of this Ordinance shall prevail. All other ordinances inconsistent with this Ordinance are hereby repealed to the extent of the inconsistency only.

d. Interpretation

In their interpretation and application, the provisions of this Ordinance 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.

e. Warning and Disclaimer of Liability

The degree of flood protection required by this Ordinance is considered reasonable for regulatory purposes and is based on engineering and scientific methods of study. Larger floods may occur on rare occasions. Flood heights may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This Ordinance does not imply that areas outside the regulated areas or that uses permitted within the regulated areas will be free from flooding or flood damages. This Ordinance shall not create liability on the part of Mills County or any officer or employee thereof for any flood damages that result from reliance on this Ordinance or any administrative decision lawfully made thereunder.

26.1.3 Flood Plain Management Standards

a. General Flood Plain Standards

All uses must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards. Where 100-year flood data has not been provided in the Flood Insurance Study, the Department of Natural Resources shall be contacted to compute such data.

(1) All structures shall be:

- (a)** Adequately anchored to prevent flotation, collapse or lateral movement of the structure,
- (b)** Be constructed with materials and utility equipment resistant to flood damage, and
- (c)** Be constructed by methods and practices that minimize flood damage.

(2) 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 one (1) foot above the 100-year

flood level and extend at such elevation at least eighteen (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 and the Department of Natural Resources, 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.

(3) Non-Residential Buildings

All new or substantially improved non-residential buildings shall have the first 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 flood-proofed to such a level. When flood-proofing is utilized, a professional engineer registered in the State of Iowa shall certify the structure can 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 National Geodetic Vertical Datum) to which any structures are flood-proofed shall be maintained by the Administrator.

(4) 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:
 - i)** A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
 - ii)** The bottom of all openings shall be no higher than one (1) foot above grade.
 - iii)** Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.
- (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 that are designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.

(5) Factory-Built Homes

- (a) Factory-built homes including those placed in existing factory-built home parks or subdivisions shall be anchored to resist flotation, collapse, or lateral movement.
- (b) 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.

(6) Utility and Sanitary Systems

- (a) All new and replacement sanitary sewage systems shall be designed to minimize and eliminate infiltration of flood waters into the system as well as the discharge of effluent into flood waters. Wastewater treatment facilities shall be provided with a level of flood protection equal to or greater than one (1) foot above the 100-year flood elevation.
- (b) On site waste disposal systems shall be located or designed to avoid impairment to the system or contamination from the system during flooding.
- (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 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.

- (7) 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.
- (a) Other material and equipment must either be similarly elevated, or
 - (b) Not be subject to major flood damage and be anchored to prevent movement due to flood waters, or
 - (c) Be readily removable from the area within the time available after flood warning.
- (8) 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 three (3) feet 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.
- (9) No use shall affect the capacity or conveyance of the channel or floodway of any tributary to the main stream, drainage ditch, or other drainage facility or system.
- (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 shall meet the applicable performance standards. Subdivision proposals intended for residential development shall provide all lots with a means of vehicular access that will remain dry during occurrence of the 100-year flood.
- (11) The exemption of detached garages, sheds, and similar structures from the 100-year flood elevation requirements may result in increased premium rates for insurance coverage of the structure and contents; however, said detached garages, sheds, and similar accessory type structures are exempt from the 100-year flood elevation requirements when:
- (a) The structure shall not be used for human habitation.
 - (b) The structure shall be designed to have low flood damage potential.
 - (c) The structure shall be constructed and placed on the building site so as to offer minimum resistance to the flow of floodwaters.
 - (d) Structures shall be firmly anchored to prevent flotation which may result in damage to other structures.

- (e) The structure's service facilities such as electrical and heating equipment shall be elevated or flood-proofed to at least one (1) foot above the 100year flood level.

b. 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 limits. Where no floodway data has been provided, the Department of Natural Resources shall be contacted to provide a floodway delineation.

- (1) 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.
- (2) 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.
- (3) No use shall affect the capacity or conveyance of the channel or floodway or any tributary to the main stream, drainage ditch, or any other drainage facility or system.
- (4) 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.
- (5) Buildings, if permitted, shall have a low flood damage potential and shall not be for human habitation.
- (6) 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.

- (7) 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.
- (8) Any fill allowed in the floodway must be shown to have some beneficial purpose and shall be limited to the minimum amount necessary.
- (9) 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.

26.1.4 Administration

a. Appointment, Duties and Responsibilities of Administrator

- (1) The Mills County Flood Plain Management Administrator shall administer and enforce the provisions of this Ordinance and will herein be referred to as the Administrator.
- (2) Duties and Responsibilities of the Administrator shall include, but not necessarily be limited to, the following:
 - (a) Review all flood plain development permit applications to ensure that the provisions of this Ordinance will be satisfied.
 - (b) Review all flood plain development permit applications to ensure that all necessary permits have been obtained from Federal, State or local governmental agencies.
 - (c) Record and maintain a record of:
 - (1) The elevation (in relation to National Geodetic Vertical Datum) of the lowest floor of all new or substantially improved buildings, or
 - (2) The elevation to which new or substantially improved structures have been flood-proofed.
 - (d) Notify adjacent communities and/or counties and the Department of Natural Resources prior to any proposed alteration or relocation of a watercourse.

- (e) Keep a record of all permits, appeals, variances and such other transactions and correspondence pertaining to the administration of this Ordinance.

b. Flood Plain Development Permit Required

(1) Permit Required

A Flood Plain Development Permit issued by the Administrator shall be secured prior to initiation of any flood plain development (any made-made change to improved or 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.

(2) Application for Permit

Application for a Flood Plain Development Permit shall be made on forms supplied by the Administrator and shall include the following information:

- (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, tract, 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 National Geodetic Vertical Datum) of the lowest floor (including basement) of buildings or of the level to which a building is to be flood-proofed.
- (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 reasonable necessary for the purpose of this Ordinance.

(3) 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 Ordinance and shall approve or disapprove the application. For disapproval, 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 Board of Supervisors.

(4) 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 Ordinance. 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, flood-proofing, or other flood protection measures were accomplished in compliance with the provisions of this Ordinance, prior to the use of occupancy of any structure.

c. Variance

- (1)** The Board of Supervisors may authorize upon request in specific cases such variances from the terms of this Ordinance that will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the provisions of this Ordinance will result in unnecessary hardship. Variances granted must meet the following applicable standards.
- (a)** No variance shall be granted for any development within the floodway which would result in any increase in flood heights during the occurrence of the 100-year flood. 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.
 - (b)** 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.

- (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 Ordinance, 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 per \$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.

(2) Factors Upon Which the Decision of the Board Shall be Based

In passing upon applications for variances, the Board of Supervisors shall consider all relevant factors specified in other sections of this Ordinance 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 flood water expected at the site.
- (l) Such other factors which are relevant to the purpose of this Ordinance.

(3) 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 Ordinance. 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 Ordinance.
- (e) Flood-proofing measures.

26.1.5 Penalties for Violation

Violations of the provisions of this Ordinance or failure to comply with any of its requirements shall constitute a misdemeanor. Any person who violates this Ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$600.00 or imprisoned for not more than thirty (30) days. Nothing herein contained shall prevent the County from taking such other lawful action as is necessary to prevent or remedy any violation.

26.1.6 Amendments

The regulations and standards set forth in this Ordinance 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.

26.1.7 Definitions

Unless specifically defined below, words or phrases used in this Ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this Ordinance its most reasonable application.

- a.** 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."
- b.** 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.
- c.** 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 Ordinance factory-built homes include mobile homes, manufactured homes and modular homes and also include park trailers, travel trailers and other similar vehicles placed on a site for greater than 180 consecutive days.
- d.** Factory-Built Home Park: A parcel or contiguous parcels of land divided into two (2) or more factory-built home lots for rent or sale.
- e.** 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.
- f.** 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.
- g.** Flood Insurance Rate Map: 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.
- h.** Flood Insurance Study: A study initiated, funded, and published by the Federal Insurance Administration for the purpose of evaluating in detail the existence and severity of flood hazards, providing the County with the necessary information for adopting a flood plain management program, and establishing actuarial flood insurance rates.

- i.** Flood Plain: Any land area susceptible to being inundated by water as a result of a flood.
- j.** 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, flood-proofing and flood plain management regulations.
- k.** 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.
- l.** 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 result in substantially higher flood levels and flow velocities.
- m.** 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.
- n.** Lowest Floor: The floor of the lowest enclosed area in a building including a basement except when all the following criteria are met:
 - (1)** The enclosed area is designed to flood to equalize hydrostatic pressure during floods with walls or openings that satisfy the provisions of Section 26.1.3(a)(4)(a) and
 - (2)** 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
 - (3)** 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
 - (4)** The enclosed area is not a "basement" as defined in this Section.
- o.** New Construction: (new buildings, factory-built home parks) Those structures or development for which the start of construction commenced on or after the effective date of the Flood Insurance Rate Map.
- p.** 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 at least once every one hundred (100) years.

- q.** 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.
- r.** 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 50 percent of the market value of the structure either:
 - (a)** Before the improvement or repair is started, or
 - (b)** If the structure has been damaged, and is being restored, before the damage occurred.

For the purposes of this definition, "substantial improvement" is considered to occur when the first alteration affects the external dimensions of the structure. 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.

- (2)** Any addition which increases the original floor area of a building by twenty-five percent (25%) or more. All additions constructed after September 16, 1982 shall be added to any proposed addition in determining whether the total increase in original floor space would exceed twenty-five percent (25%).