

**BILL NO. 2012 – 1001**

**ORDINANCE NO. 2012-1001**

**AN ORDINANCE OF THE CITY OF LAKE ANNETTE, MISSOURI PROVIDING FOR THE ADOPTION OF THE FLOODPLAIN MANAGEMENT ORDINANCE 60.3 (d) AS PROVIDED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.**

**BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF LAKE ANNETTE, MISSOURI AS FOLLOWS:**

**SECTION 1:** That the attached Floodplain Management Ordinance 60.3(d) shall be adopted in its entirety and become part of the Ordinances of the City of Lake Annette, Missouri.

**SECTION 2:** That a copy of this ordinance shall be kept on file in the office of the City Clerk.

**SECTION 3:** That all ordinances in conflict herewith are hereby repealed.

**SECTION 4:** This ordinance shall be in full force and effective from and after its passage and approval.

**First reading and passage on the 9<sup>th</sup> Day of October, 2012**

**Second reading and passage by the Board of Aldermen on the 13th day of November, 2012.**

**APPROVAL:**

**ATTEST:**



**David Irwin, Mayor**



**Laurie Oakes, City Clerk**

**FLOODPLAIN MANAGEMENT ORDINANCE**  
**60.3(d)**

**ARTICLE 1 STATUTORY AUTHORIZATION, FINDINGS OF FACT, AND PURPOSES**

**SECTION A. STATUTORY AUTHORIZATION**

The Legislature of the State of Missouri has in RSMo 79.110 delegated the responsibility to local governmental units to adopt floodplain management regulations designed to protect the health, safety, and general welfare. Therefore, the Board of Aldermen of the City of Lake Annette, Missouri ordains as follows:

**SECTION B. FINDINGS OF FACT**

1. *Flood Losses Resulting from Periodic Inundation*

The special flood hazard areas of the City of Lake Annette, Missouri are subject to inundation which results 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.

2. *General Causes of the Flood Losses*

These flood losses are caused by (1) the cumulative effect of development in any delineated floodplain causing increases in flood heights and velocities; and (2) the occupancy of flood hazard areas by uses vulnerable to floods, hazardous to others, inadequately elevated, or otherwise unprotected from flood damages.

3. *Methods Used To Analyze Flood Hazards*

The Flood Insurance Study (FIS) that is the basis of this ordinance uses a standard engineering method of analyzing flood hazards which consist of a series of interrelated steps.

- a. Selection of a base flood that is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the depth of inundation. The base flood selected for this ordinance is representative of large floods which are characteristic of what can be expected to occur on the particular streams subject to this ordinance. It is in the general order of a flood which could be expected to have a one percent chance of occurrence in any one year as delineated on the Federal Insurance Administrator's FIS, and illustrative materials for Cass County dated January 2, 2013 as amended, and any future revisions thereto.
- b. Calculation of water surface profiles are based on a standard hydraulic engineering analysis of the capacity of the stream channel and overbank areas to convey the regulatory flood.
- c. Computation of a floodway required to convey this flood without increasing flood heights more than one (1) foot at any point.

[Article 1, Section B(3)]

- d. Delineation of floodway encroachment lines within which no development is permitted that would cause any increase in flood height.
- e. Delineation of flood fringe, i.e., that area outside the floodway encroachment lines, but still subject to inundation by the base flood.

**SECTION C. STATEMENT OF PURPOSE**

It is the purpose of this ordinance to promote the public health, safety, and general welfare; to minimize those losses described in Article 1, Section B (1); to establish or maintain the community's eligibility for participation in the National Flood Insurance Program (NFIP) as defined in 44 Code of Federal Regulations (CFR) 59.22(a)(3); and to meet the requirements of 44 CFR 60.3(d) by applying the provisions of this ordinance to:

- 1. restrict or prohibit uses that are dangerous to health, safety, or property in times of flooding or cause undue increases in flood heights or velocities;
- 2. require uses vulnerable to floods, including public facilities that serve such uses, be provided with flood protection at the time of initial construction; and
- 3. protect individuals from buying lands that are unsuited for the intended development purposes due to the flood hazard.

**ARTICLE 2 GENERAL PROVISIONS**

**SECTION A. LANDS TO WHICH ORDINANCE APPLIES**

This ordinance shall apply to all lands within the jurisdiction of the City of Lake Annette, Missouri identified as numbered and unnumbered A zones and AE zones, on the Flood Insurance Rate Maps (FIRMs) for Cass County on map panel numbers 29037C0144F and 29037C0145F, dated January 2, 2013 as amended, and any future revisions thereto. In all areas covered by this ordinance, no development shall be permitted except through the issuance of a floodplain development permit, granted by the Board of Aldermen or its duly designated representative under such safeguards and restrictions as the Board of Aldermen or the designated representative may reasonably impose for the promotion and maintenance of the general welfare, health of the inhabitants of the community, and as specifically noted in Article 4.

**SECTION B. FLOODPLAIN ADMINISTRATOR**

The Mayor is hereby designated as the Floodplain Administrator under this ordinance.



[Article 2 Section C]

SECTION C. COMPLIANCE

No development located within the special flood hazard areas of this community shall be located, extended, converted, or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

SECTION D. 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 provisions of this ordinance shall prevail. All other ordinances inconsistent with this ordinance are hereby repealed to the extent of the inconsistency only.

SECTION E. INTERPRETATION

In their interpretation and application, the provisions of this ordinance shall be held to be minimum requirements, 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.

SECTION F. 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 or the 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 floodway and flood fringe or land uses permitted within such areas will be free from flooding or flood damage. This ordinance shall not create a liability on the part of the City of Lake Annette, any officer or employee thereof, for any flood damages that may result from reliance on this ordinance or any administrative decision lawfully made thereunder.

SECTION G. SEVERABILITY

If any section, clause, provision, or portion of this ordinance is adjudged unconstitutional or invalid by a court of appropriate jurisdiction, the remainder of this ordinance shall not be affected thereby.

**ARTICLE 3 ADMINISTRATION**

SECTION A. FLOODPLAIN DEVELOPMENT PERMIT (REQUIRED)

A floodplain development permit shall be required for all proposed construction or other development, including the placement of manufactured homes, in the areas described in Article 2, Section A. No person, firm, corporation, or unit of government shall initiate any development or substantial-improvement or cause the same to be done without first obtaining a separate floodplain development permit for each structure or other development.

[Article 3 Section B]

SECTION B. DESIGNATION OF FLOODPLAIN ADMINISTRATOR

The Mayor is hereby appointed to administer and implement the provisions of this ordinance.

SECTION C. DUTIES AND RESPONSIBILITIES OF FLOODPLAIN ADMINISTRATOR

Duties of the Mayor shall include, but not be limited to:

1. review of all applications for floodplain development permits to assure that sites are reasonably safe from flooding and that the floodplain development permit requirements of this ordinance have been satisfied;
2. review of all applications for floodplain development permits for proposed development to assure that all necessary permits have been obtained from Federal, State, or local governmental agencies from which prior approval is required by Federal, State, or local law;
3. review all subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, to determine whether such proposals will be reasonably safe from flooding;
4. issue floodplain development permits for all approved applications;
5. notify adjacent communities and the Missouri State Emergency Management Agency (Mo SEMA) prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Emergency Management Agency (FEMA);
6. assure that the flood carrying capacity is not diminished and shall be maintained within the altered or relocated portion of any watercourse.
7. verify and maintain a record of the actual elevation (in relation to mean sea level) of the lowest floor, including basement, of all new or substantially improved structures;
8. verify and maintain a record of the actual elevation (in relation to mean sea level) that the new or substantially improved non-residential structures have been floodproofed;
9. when floodproofing techniques are utilized for a particular non-residential structure, the Mayor shall require certification from a registered professional engineer or architect.



#### SECTION D. APPLICATION FOR FLOODPLAIN DEVELOPMENT PERMIT

To obtain a floodplain development permit, the applicant shall first file an application in writing on a form furnished for that purpose. Every floodplain development permit application shall:

1. describe the land on which the proposed work is to be done by lot, block and tract, house and street address, or similar description that will readily identify and specifically locate the proposed structure or work;
2. identify and describe the work to be covered by the floodplain development permit;
3. indicate the use or occupancy for which the proposed work is intended;
4. indicate the assessed value of the structure and the fair market value of the improvement;
5. specify whether development is located in designated flood fringe or floodway;
6. identify the existing base flood elevation and the elevation of the proposed development;
7. give such other information as reasonably may be required by the Mayor;
8. be accompanied by plans and specifications for proposed construction; and
9. be signed by the permittee or his authorized agent who may be required to submit evidence to indicate such authority.

### ARTICLE 4 PROVISIONS FOR FLOOD HAZARD REDUCTION

#### SECTION A. GENERAL STANDARDS

1. No permit for floodplain development shall be granted for new construction, substantial-improvements, and other improvements, including the placement of manufactured homes, within any numbered or unnumbered A zones and AE zones, unless the conditions of this section are satisfied.
2. All areas identified as unnumbered A zones on the FIRM are subject to inundation of the 100-year flood; however, the base flood elevation is not provided. Development within unnumbered A zones is subject to all provisions of this ordinance. If Flood Insurance Study data is not available, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources.
3. Until a floodway is designated, no new construction, substantial improvements, or other development, including fill, shall be permitted within any numbered A zone or AE zone on the FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

[Article 4, Section A(4)]

4. All new construction, subdivision proposals, substantial-improvements, prefabricated structures, placement of manufactured homes, and other developments shall require:
  - a. design or adequate anchorage to prevent flotation, collapse, or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;
  - b. construction with materials resistant to flood damage;
  - c. utilization of methods and practices that minimize flood damages;
  - d. all electrical, heating, ventilation, plumbing, air-conditioning equipment, and other service facilities be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding;
  - e. new or replacement water supply systems and/or sanitary sewage systems be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters, and on-site waste disposal systems be located so as to avoid impairment or contamination; and
  - f. subdivision proposals and other proposed new development, including manufactured home parks or subdivisions, located within special flood hazard areas are required to assure that:
    - (1) all such proposals are consistent with the need to minimize flood damage;
    - (2) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located and constructed to minimize or eliminate flood damage;
    - (3) adequate drainage is provided so as to reduce exposure to flood hazards; and
    - (4) all proposals for development, including proposals for manufactured home parks and subdivisions, of five (5) acres or fifty (50) lots, whichever is lesser, include within such proposals base flood elevation data.

5. *Storage, material, and equipment*

- a. The storage or processing of materials within the special flood hazard area that are in time of flooding buoyant, flammable, explosive, or could be injurious to human, animal, or plant life is prohibited.
- b. Storage of other material or equipment may be allowed if not subject to major damage by floods, if firmly anchored to prevent flotation, or if readily removable from the area within the time available after a flood warning.

6. *Accessory Structures*

Structures used solely for parking and limited storage purposes, not attached to any other structure on the site, of limited investment value, and not larger than 400 square feet, may be constructed at-grade and wet-floodproofed provided there is no human habitation or occupancy of the structure; the structure is of single-wall design; a variance has been granted from the standard floodplain management requirements of this ordinance; and a floodplain development permit has been issued.



## SECTION B. SPECIFIC STANDARDS

1. In all areas identified as numbered and unnumbered A zones and AE zones, where **base flood elevation** data have been provided, as set forth in Article 4, Section A(2), the following provisions are required:

- a. *Residential Construction*

New construction or substantial-improvement of any residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above base flood elevation.

*[\*In all unnumbered and numbered A zones and AE zones, the FEMA, Region VII office recommends elevating to one foot above the base flood elevation to accommodate floodway conditions when the floodplain is fully developed.]*

- b. *Non-Residential Construction*

New construction or substantial-improvement of any commercial, industrial, or other non-residential structures, including manufactured homes, shall have the lowest floor, including basement, elevated to one (1) foot above the base flood elevation or, together with attendant utility and sanitary facilities, be floodproofed so that below the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water and with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy. A registered professional engineer or architect shall certify that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator as set forth in Article 3, Section C(9).

- c. Require, for all new construction and substantial-improvements that fully enclosed areas below lowest floor used solely for parking of vehicles, building access, or storage in an area other than a basement and 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 architect 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; and
- (2) the bottom of all opening shall be no higher than one foot above grade. Openings may be equipped with screens, louvers, valves, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.



## SECTION C. MANUFACTURED HOMES

1. All manufactured homes to be placed within all unnumbered and numbered A zones and AE zones, on the community's FIRM shall be required to be installed using methods and practices that minimize flood damage. For the purposes of this requirement, manufactured homes must be elevated and 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.
2. Require manufactured homes that are placed or substantially improved within unnumbered or numbered A zones and AE zones, on the community's FIRM on sites:
  - a. outside of manufactured home park or subdivision;
  - b. in a new manufactured home park or subdivision;
  - c. in an expansion to and existing manufactured home park or subdivision; or
  - d. in an existing manufactured home park or subdivision on which a manufactured home has incurred substantial-damage as the result of a flood,

be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to one (1) foot above the base flood elevation and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

3. Require that manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within all unnumbered and numbered A zones and AE zones, on the community's FIRM, that are not subject to the provisions of Article 4, Section C(2) of this ordinance, be elevated so that either:
  - a. the lowest floor of the manufactured home is at one (1) foot above the base flood level; or
  - b. the manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six (36) inches in height above grade and be securely attached to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

*[\*In all unnumbered and numbered A zones and AE zones, the FEMA, Region VII office recommends elevating to one foot above the base flood elevation to accommodate floodway conditions when the floodplain is fully developed.]*

[Article 4, Section D]

**SECTION D. FLOODWAY**

Located within areas of special flood hazard established in Article 2, Section A are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters that carry debris and potential projectiles, the following provisions shall apply:

1. The community shall select and adopt a regulatory floodway based on the principle that the area chosen for the regulatory floodway must be designed to carry the waters of the base flood without increasing the water surface elevation of that flood more than one foot at any point.
2. The community shall prohibit any encroachments, including fill, new construction, substantial-improvements, and other development within the adopted regulatory floodway unless it has been demonstrated through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in **any** increase in flood levels within the community during the occurrence of the base flood discharge.
3. If Article 4, Section D(2) is satisfied, all new construction and substantial-improvements shall comply with all applicable flood hazard reduction provisions of Article 4.
4. In unnumbered A zones, the community shall obtain, review, and reasonably utilize any base flood elevation or floodway data currently available from Federal, State, or other sources as set forth in Article 4, Section A(2).

**SECTION E. RECREATIONAL VEHICLES**

1. Require that recreational vehicles placed on sites within all unnumbered and numbered A zones and AE zones on the community's FIRM either:
  - a. be on the site for fewer than 180 consecutive days,
  - b. be fully licensed and ready for highway use\*; **or**
  - c. meet the permitting, elevation, and the anchoring requirements for manufactured homes of this ordinance.

\*A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick-disconnect type utilities and security devices, and has no permanently attached additions.

**ARTICLE 5 FLOODPLAIN MANAGEMENT VARIANCE PROCEDURES**

**SECTION A. ESTABLISHMENT OF APPEAL BOARD**

The Board of Aldermen as established by the City of Lake Annette shall hear and decide appeals and requests for variances from the floodplain management requirements of this ordinance.

**SECTION B. RESPONSIBILITY OF APPEAL BOARD**

Where an application for a floodplain development permit or request for a variance from the floodplain management regulations is denied by the Mayor, the applicant may apply for such floodplain development permit or variance directly to the Appeal Board, as defined in Article 5, Section A.