

Chapter 20 Floodplain Zoning

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20.01 Statement of Intent

It is the purpose of this chapter to:

A. Control floodplain uses such as fill, dumping, storage of materials, structures, buildings and any other works which acting alone or in combination with other existing or future uses will cause damaging flood heights and water velocities by obstructing flows and reducing channel storage;

B. Require that uses vulnerable to floods including public facilities which serve such uses be provided with flood protection at the time of initial construction;

C. Protect individuals from buying lands which are unsuited for intended purposes because of flood hazards;

D. Assure that eligibility is maintained for property owners in the City of Cheney to purchase flood insurance in the federal flood insurance program.

20.02 Findings of Fact

A. The flood hazard areas of the City of Cheney 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.

B. These flood losses are caused by:

1. The cumulative effect of obstruction in floodways, causing increases in flood heights and velocities;
2. The occupancy of flood hazard areas by uses vulnerable to floods or hazardous to others which are inadequately elevated or otherwise protected from flood damages.

20.03 Methods Used to Analyze Flood Hazards

This chapter uses a reasonable method of analyzing flood hazards which consists of a series of interrelated steps:

A. Selection of a regulatory flood which is based upon engineering calculations which permit a consideration of such flood factors as its expected frequency of occurrence, the area inundated, and the dept of inundation. The regulatory flood selected for this chapter is representative of large floods known to have occurred in this region and which are reasonable characteristic of what can be expected to occur on the particular streams subject to this chapter. It is in the general order of a flood which could be expected to occur on the average once every one hundred (100) years or has a one (1) percent chance of occurrence in any one (1) year, as delineated on the most recently adopted by the Governing Body Flood Insurance Rate Map (FIRM) and illustrative materials. www.fema.gov.

B. Calculation of water surface profiles based upon a hydraulic engineering analysis of the capacity of the stream channel and over bank areas to convey the regulatory flood;

C. Computation of floodway required to convey this flood without increasing flood heights more than one (1) foot at any point;

D. Delineation of the floodway encroachment lines within which no obstruction is permitted which would cause any increase in flood height;

E. Delineation of the floodway fringe, that area outside the floodway encroachment lines but which is still subject to inundation by the regulatory flood.

F. The current Flood Insurance Study and the FIRM adopted by the Governing Body and incorporated by reference in this chapter.

20.04 General Provisions

A. LAND TO WHICH THIS CHAPTER APPLIES. This chapter shall apply to all lands within the jurisdiction of the City of Cheney identified in the Flood Insurance Study, the FIRM, as adopted, and other undesignated areas having a one hundred (100) year floodplain as determined by engineering studies and within the floodway and floodway

fringe overlaying zoning districts. In all areas covered by this chapter, no development shall be permitted except upon a permit granted by the City Administrator.

B. THE ENFORCEMENT OFFICER. The City Administrator of the City of Cheney or his/her designee is designated as the enforcement officer.

C. RULES FOR INTERPRETATION OF DISTRICT BOUNDARIES. The boundaries of the floodway and floodway fringe overlay districts shall be determined by reviewing the Flood Insurance Study, the FIRM, or other available data. Where interpretation is needed as to the exact location of the boundaries of the districts, the City Administrator shall make the necessary interpretation based upon data available. The City Administrator shall maintain the FIRM, Flood Insurance Study and other engineering studies relating to flood data. In such cases where the interpretation is contested, the Federal Emergency Management Agency (FEMA) will resolve the dispute. The owner of the property of which the regulatory flood elevation is in question shall be given a reasonable opportunity to present his/her case to the board and to submit his/her own technical evidence, if he/she so desires.

D. COMPLIANCE. No new structure or existing land shall hereafter be used and no new structure shall be located, extended, converted or structurally altered without full compliance with the terms of this chapter and other applicable regulations.

E. 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.

F. INTERPRETATION. The provisions of this chapter shall be held to be minimum requirements and shall not be deemed a limitation or repeal of any other powers granted by state statutes.

G. WARNING AND DISCLAIMER OF LIABILITY. The degree of flood protection required by this chapter 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 height may be increased by man-made or natural causes, such as ice jams and bridge openings restricted by debris. This chapter does not imply that land uses permitted within such zoning districts will be free from flooding or flood damages. This chapter shall not create liability on the part of the City or any officer or employee thereof for any flood damages that may result from reliance on this chapter or any administrative decision lawfully made thereunder.

20.05 Building or Land Use Permit

A. PERMIT REQUIRED. No person, firm or corporation shall initiate any development or cause the same to be done without first obtaining a building or land use permit in accordance with the definition of development as contained herein.

B. APPLICATION FOR BUILDING OR LAND USE PERMIT. To obtain a permit, the applicant shall first file an application therefore in writing on a form furnished for that purpose. Every application shall:

1. Identify and describe the work to be covered by the permit for which application is made;
2. Describe the land on which the proposed work is to be done by legal description and street address;
3. Indicate the use or occupancy for which the proposed work is intended;
4. Be accompanied by plans and specifications for proposed construction;
5. Be signed by the permittee or his/her authorized agent who may be required to submit evidence to indicate such authority;
6. Within designated flood prone areas, be accompanied by elevations of the lowest floor including basement or, in the case of flood proofed non-residential structures, the elevation to which it will be flood proofed. Documentation or certification of such elevations will be maintained by the City;
7. Give such additional information as may be required by the City such as:
 - a. A plan prepared by a registered engineer in the state of Kansas which includes typical valley cross sections and profiles showing the channel of the stream, elevation of land areas adjoining each side of the channel, cross-sectional areas to be affected by the proposed development, and elevation of the fully developed one hundred (100) year flood.
 - b. Plan; surface view, showing elevations or contours of ground; pertinent structure, fill or storage elevations; size, location and spatial arrangement of all proposed and existing structures on the site; location and elevations of streets, water supply, sanitary facilities, and other data that will assist the City Administrator to make a determination of flooding.
 - c. The City Administrator shall review all building and land use permit applications to determine if the site of the proposed development meets the provisions of this chapter and that all necessary permits have been received as required by federal or state law.

20.06 Establishment of Zoning Districts

The floodplain areas within the jurisdiction of this chapter are hereby divided into the two (2) following districts:

- A. A floodway overlay district (FW); and
- B. A floodway fringe overlay district (FF) which are identified on the Flood Insurance Study, the FIRM, and other data.

Within these districts all uses not meeting the standards of this chapter and those of the underlying zoning district shall be prohibited.

20.07 Standards for the Floodway Overlay District and the Floodway Fringe Overlay District

- A. COMPLIANCE REQUIRED. No permit shall be granted for new construction, substantial improvements and other improvements within the one hundred (100) year floodplain unless the conditions of this section are satisfied.
- B. UNDESIGNATED AREAS. All areas identified as unnumbered "A" zones on the FIRM are subject to inundation of the one hundred (100) year flood; however, the water surface elevation was not provided. The unnumbered "A" zones shall be subject to all development provisions of this ordinance. If Flood Insurance Study data is not available the community shall utilize any base flood elevation or floodway data currently available from federal, state or other sources.
- C. STANDARDS. New construction, substantial improvements and other developments shall be designed or anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy, and shall comply with the following:
 - 1. New or replacement water supply systems and/or sanitary sewage systems shall be designed to eliminate or minimize infiltration of floodwaters into the systems and discharges from the systems into floodwaters, and on-site waste disposal systems shall be located so as to avoid impairment of them or contamination from them beyond applicable environmental control limits during flooding.
 - 2. Construction with materials resistant to flood damage, utilizing methods and practices that minimize flood damages, and 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.

3. All utility and sanitary facilities shall be flood proofed up to the regulatory flood-protection elevation so that any space below the regulatory flood protection elevation is watertight, with walls substantially impermeable to the passage of water, with structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.

4. Provided, that until a floodway has been designated, no development, including landfill, may be permitted with zones A1-0 and AE on the City's FIRM unless the applicant for the land use has demonstrated that the proposed use, when combined with all other existing and reasonable anticipated uses, will not increase the water surface elevation of the one hundred (100) year flood more than one (1) foot on the average cross section of the reach in which the development or landfill is located as shown on the flood boundary and floodway map incorporated by reference,

5. Any grading changes within the area estimated to be inundated by the one hundred (100) year flood, or alterations, modification or relocations of a watercourse within the jurisdiction of the Division of Water Resources, State Board of Agriculture rules and regulations, as authorized by KSA 24-126, and any subsequent revisions thereof, shall insure that the water carrying capacity is maintained. The plans for such changes, modification, alterations or relocations shall be submitted to and approved by the Division of Water Resources, State Board of Agriculture, concurrent with City approval. In addition, the City shall notify, in reverie situations, adjacent communities prior to the local office of the administrator of the Federal Insurance Administration (FIA).

6. Subdivision proposals and other proposed new development, including manufactured home parks or subdivision, are required to assure that (a) all such proposals are consistent with the need to minimize flood damage; (b) all public utilities and facilities, such as sewer, gas, electrical, and water systems are located, elevated and constructed to minimize or eliminate flood damage; (c) adequate drainage is provided so as to reduce exposure to flood hazards; and (d) 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 the regulatory flood elevation.

20.08 Floodway Overlay District

A. PERMITTED USES. Only uses having a low flood-damage potential and not obstructing flood flows shall be permitted within the Floodway District to the extent they are not prohibited by any other ordinance. All encroachments, including fill, new construction, substantial improvements and other developments must be prohibited

unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during occurrence of the base flood discharge. No use shall increase the flood levels of the regulatory flood elevation. The following are recommended uses for the Floodway District:

1. Agricultural uses such as general farming, pastures, nurseries, forestry.
2. Residential uses such as lawns, gardens and yard areas.
3. Non-residential uses such as loading areas, parking, and landing strips.
4. Public and private recreational uses such as golf courses, archery ranges, picnic grounds, parks, wildlife and nature preserves.

B. PROHIBITED USES. All inhabitable structures, manufactured (mobile) homes, manufactured (mobile) home parks, manufactured (mobile) home subdivision, manufactured (mobile) home sales and display areas, and recreation vehicle storage or sales areas shall be prohibited.

20.09 Floodway Fringe Overlay District

A. PERMITTED USES. Any uses allowed in the Floodway District above as well as uses allowed in the underlying zoning district, in accordance with standards established in this section.

B. PROHIBITED USES. Manufactured (mobile) homes, manufactured (mobile) home parks, manufactured (mobile) home subdivision, manufactured (mobile) home sales and display areas, and recreation vehicle storage or sales areas shall be prohibited.

C. STANDARDS FOR THE FLOODWAY FRINGE OVERLAY DISTRICT. The following additional requirements shall apply to development within the floodway fringe overlay district:

1. Residential Construction. New construction or substantial improvements of residential structures shall have the lowest floor, including basement, elevated to or above a point of one (1) foot above the one hundred (100) year flood elevation.
2. Non-residential Construction. New construction or substantial improvements to non-residential structures shall have the lowest floor, including basement, elevated to or above a point one (1) foot above the one hundred (100) year flood elevation or, together with attendant utility and sanitary facilities, to be flood proofed up to that level.

3. All new construction and substantial improvements that fully enclosed areas below the lowest floor 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: 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. The bottom of all openings shall be no higher than one (1) 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.

20.10 Elevation Certificate

An elevation certificate shall be submitted for all construction adjacent to any floodplain. The elevation certificate shall meet the requirements of FEMA.

20.11 Certification of Flood Proofing

1. For the flood proofing of non-residential structures, applicants shall provide certification by a Kansas licensed professional engineer or architect that the flood proofing plans are adequate to be watertight with walls impermeable to the passage of water and can withstand the hydrostatic and hydrodynamic forces associated with the one hundred (100) year flood.
2. In addition, the applicant shall provide information identifying the specific elevation in relation to mean sea level to which such structures are flood proofed.
3. This information shall be submitted to the City Administrator at the time a permit is requested and shall be maintained by that official.

20.12 Variances and Variance Procedures

The City Administrator shall hear and decide appeals and requests for variances from the requirements of this chapter.

ADDITIONAL CONDITIONS FOR VARIANCES. The City, in passing upon variance applications, shall consider all technical evaluations, all relevant factors, standards specified in the sections of this chapter, and:

1. The danger that materials may be swept onto other lands to the injury of others;
2. The danger of life and property due to flooding or erosion damage;

3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the community
5. The necessity to the facility of a waterfront location, where applicable;
6. The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use;
7. The compatibility of the proposed use with existing and anticipated development;
8. The relationship of the proposed use to the Comprehensive Plan and floodplain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters and the effects of wave action, if applicable, expected at the site;
11. The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities and facilities such as sewer, gas, electrical and water systems, and streets and bridges;
12. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief;
13. Variances shall only be issued upon:
 - a. A showing of good sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud or victimization of the public, or conflict with existing local laws or ordinances;

14. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result;
15. Upon consideration of the factors listed above and the purpose of this chapter, the City Administrator may attach such conditions to the granting of variances as it deems necessary to further the purpose of this chapter.

2. REPORTING OF VARIANCES.

1. Any applicant to whom a variance is granted shall be given a written notice that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation;
2. The City Administrator shall maintain the records of all appeal actions and report all variances to the FIA at the time the biennial report is submitted.

20.13 Penalties for Violation

Penalties shall be as established in the General Provisions chapter of the Zoning Ordinance.

20.14 Definitions

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

1. **“Actuarial or Risk Premium Rate”** are those rates established by the administrator pursuant to individual community studies and investigations which are undertaken to provide flood insurance in accordance with Section 1307 of the Act and the accepted actuarial principals. “Risk premium rates” include provisions for operating costs and allowances.
2. **“Appeal”** means a request for a review of the City Administrator’s interpretation of any provision of this chapter or a request for a variance.
3. **“Area of shallow flooding”** means a designated AO or AH zone on a community’s FIRM with a one (1) percent or greater annual chance of flooding to an average depth of one (1) to three (3) feet where a clearly defined channel is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.
4. **“Area of special flood hazard”** is the land in the floodplain within a community subject to one (1) percent or greater chance of flooding in any given year.

5. “Base flood” means the flood having a one (1) percent chance of being equaled or exceeded in any given year.
6. “Channel” means a natural or artificial watercourse of perceptible extent, with a definite bed and banks to confine and conduct continuously or periodically flowing water. “Channel flow” thus is that water which is flowing within the limits of a defined channel.
7. “Development” means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging.
8. “Existing construction” means (for the purposes of determining rates) structures for which the “start construction” commenced before the effective date of the FIRM or before January 1, 1975, for FIRM’s effective before that date. “Existing construction” may also be referred to as “existing structures”.
9. “Flood” or “Flooding” means a general and temporary condition of partial or complete inundation of normally dry land areas from:
 1. The overflow of inland or tidal waters.
 2. The usual and rapid accumulation of runoff of surface waters from any source.
10. “Flood elevation determination” means a determination of the water surface elevations of the one hundred (100) year flood; that is, the level of flooding that has a one (1) percent chance of occurrence in any given year.
10. “Flood Insurance Rate Map (FIRM)” means an official map of a community, on which the Flood Insurance Study has delineated the Flood Hazard Boundaries and the zones establishing insurance rates applicable to the community.
10. “Flood Insurance Study (FIS)” is the official report provided by the Federal Emergency Management Agency (FEMA). The report contains flood profiles, as well as the Flood Boundary Floodway Map and the water surface elevation of the base flood.
10. “Floodway” or “Regulatory Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot.
10. “Floodway fringe” is that area of the floodplain, outside of the floodway, that on the average is likely to be flooded once every one hundred (100) years (i.e., that has a one (1) percent chance of flood occurrence in any one (1) year).

10. “Floodplain management” means the operation of an overall program of corrective and preventive measures for reducing flood damage, including but not limited to emergency preparedness plan, flood control works and floodplain management regulations.
10. “Flood protection system” means those physical structural works constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a “special flood hazard”. Such a system typically includes levees or dikes. These specialized modifying works are those constructed in conformance with sound federal engineering standards.
10. “Flood proofing” means any combination of structural and nonstructural additions, changes or adjustments to structures, including utility and sanitary facilities which would preclude the entry of water. Structural components shall have the capability of resisting hydrostatic and hydrodynamic loads and the effect of buoyancy.
10. “Freeboard” means a factor of safety usually expressed in feet above a flood level for purposes of floodplain management. “Freeboard” tends to compensate for the many unknown factors that could contribute to flood heights greater than the height calculated for a selected size flood and floodway conditions, such as wave action, clogged bridge openings, and the hydrological effect of urbanization of the watershed.
10. “Highest adjacent grade” means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.
10. “Historic Structure” means any structure that is:
 1. Listed individually in the National Register of Historic Places (a listing maintained by the Department of the Interior), or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
 2. 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;
 3. Individually listed on the state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
 4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - i. By 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.

21. “Lowest floor” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building’s lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of this ordinance.
21. “Manufactured home” means a structure, transportable in one (1) or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term “manufactured home” also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than one hundred eighty (180) days. For insurance purposes the term “manufactured home” does not include park trailers, travel trailers, or other similar vehicles. “Manufactured homes park or subdivision” means a parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.
21. “New construction” means, for the purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.
21. “Start of construction” (for other than new construction or substantial improvements under the coastal Barrier Resources Act (Pub. L. 97-348) includes substantial improvement, and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within one hundred eighty (180) days of the permit date. The actual start means the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation or the placement of a manufactured 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 a building, whether or not that alteration affects the external dimensions of the building.

21. “Overlay district” is a district in which additional requirements act in conjunction with the underlying zoning district(s). The original zoning district designation does not change.
21. “Regulatory floor elevation” means an elevation one (1) foot higher than the water surface elevation of the regulatory flood.
21. “Structure” means a walled and roofed building that is principally above ground, as well as a manufactured home, and a gas or liquid storage tank that is principally above ground.
21. “Substantial damage” means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed fifty (50) percent of the market value of the structure before the damage occurred.
21. “Substantial improvement” means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds fifty (50) percent of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. The term does not, however, include either (1) any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions, or (2) any alteration of a “historic structure,” provided that the alteration will not preclude the structure’s continued designation as a “historic structure.”
21. “Variances” is a grant of relief to a person from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.