

FLOOD DAMAGE PREVENTION ORDINANCE

ARTICLE 1

STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND METHODS

SECTION A. STATUTORY AUTHORIZATION

The Legislature of the State of Texas has in the Flood Control Insurance Act, Texas Water Code, Section 16.315, delegated the responsibility of local governmental units to adopt regulations designed to minimize flood losses. Therefore, the Commissioners Court} of Caldwell County, Texas does ordain as follows:

SECTION B. FINDINGS OF FACT

(1) The flood hazard areas of Caldwell County are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public's health, safety and general welfare.

(2) These flood losses are created by the cumulative effect of obstructions in floodplains which cause an increase in flood heights and velocities, and by the occupancy of flood hazard areas by uses vulnerable to floods and hazardous to other lands because they are inadequately elevated, floodproofed or otherwise protected from flood damage.

SECTION C. STATEMENT OF PURPOSE

It is the purpose of this ordinance to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- (1) Protect human life and health;
- (2) Minimize expenditure of public money for costly flood control projects;
- (3) Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;

(4) Minimize prolonged business interruptions;

(5) Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in floodplains;

(6) Help maintain a stable tax base by providing for the sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas; and

(7) Ensure that potential buyers are notified that property is in a flood area.

SECTION D. METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance uses the following methods:

(1) Restrict or prohibit uses that are dangerous to health, safety or property in times of flood or cause excessive increases in flood heights or velocities;

(2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;

(3) Control the alteration of natural floodplains, stream channels and natural protective barriers which are involved in the accommodation of flood waters;

(4) Control filling, grading, dredging and other development which may increase flood damage;

(5) Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands.

ARTICLE 2

DEFINITIONS

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

ACCESSORY STRUCTURE means a structure on the same parcel of property as a principal structure and the use of which is incidental to the use of the principal structure. For floodplain management purposes, the term includes only accessory structures used for parking and storage.

ACT means the statutes authorizing the National Flood Insurance Program (NFIP) that are incorporated in 42 U.S.C. 4001- et seq.

ADMINISTRATOR means the Administrator of the Federal Emergency Management Agency.

AGENCY means the Federal Emergency Management Agency, Washington DC.

AGRICULTURAL STRUCTURE for floodplain management purposes, means a walled and roofed structure used exclusively for agricultural purposes or uses in connection with production, harvesting, storage, raising or drying of agricultural commodities and livestock, including aquatic organisms. Structures that house tools or equipment used in connection with these purposes or uses are also considered to have agricultural purposes or uses.

ALLUVIAL FAN FLOODING means flooding occurring on the surface of an alluvial fan or similar landform which originates at the *apex* and is characterized by high-velocity flows; active processes of erosion, sediment transport and deposition; and unpredictable flow paths.

APEX means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

APPURTENANT STRUCTURE means a structure which is on the same parcel of property as the principal structure to be insured and the use of which is incidental to the use of the principal structure.

AREA OF FUTURE CONDITIONS FLOOD HAZARD means the land area that would be inundated by the 1-percent annual chance (100-year) flood based on future conditions hydrology.

AREA OF SHALLOW FLOODING means a designated AO, AH, AR/AO, AR/AH or VO zone on a community's Flood Insurance Rate Map (FIRM) with a 1-percent chance or greater annual chance of flooding to an average depth of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

AREA OF SPECIAL FLOOD HAZARD is the land in the floodplain within a community subject to a 1-percent or greater chance of flooding in any given year. The area may be designated as Zone A on the Flood Hazard Boundary Map (FHBM). After detailed ratemaking has been completed in preparation for publication of the FIRM, Zone A usually is refined into Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE or V. For purposes of these regulations, the term "special flood hazard area" (SFHA) is synonymous in meaning with the phrase "area of special flood hazard."

AREA OF SPECIAL FLOOD-RELATED EROSION HAZARD is the land within a community which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone E on the FHBM. After the detailed evaluation of the special flood-related erosion hazard area in preparation for publication of the FIRM, Zone E may be further refined.

AREA OF SPECIAL MUDSLIDE (I.E., MUDFLOW) HAZARD is the land within a community most likely to be subject to severe mudslides (i.e., mudflows). The area may be designated as Zone M on the FHBM. After the detailed evaluation of the special mudslide (i.e., mudflow) hazard area in preparation for publication of the FIRM, Zone M may be further refined.

BASE FLOOD means the flood having a 1-percent chance of being equaled or exceeded in any given year.

BASE FLOOD ELEVATION (BFE) is the elevation shown on the FIRM and found in the accompanying Flood Insurance Study (FIS) for Zones A, AE, AH, A1-A30, AR, V, V1-V30 or VE that indicates the water surface elevation resulting from the flood that has a 1-percent chance of equaling or exceeding that level in any given year - also called the *base flood*.

BASEMENT means any area of the building having its floor subgrade (below ground level) on all sides.

BASE LEVEL ENGINEERING (BLE) are flood risk datasets that meet the technical mapping standards outlined in FEMA Policy 204-078-1 Standards for Flood Risk Analysis and Mapping and include estimated floodplain extents (10-, 1- and 0.2-percent annual chance events), water surface elevation grids

(1- and 0.2-percent annual chance events), flood depth grids (1- and 0.2-percent annual chance events) and Hazus Flood Risk Assessment.

BREAKAWAY WALL means a wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.

BUILDING —see *Structure*.

CHIEF EXECUTIVE OFFICER of the community (CEO) means the official of the community who is charged with the authority to implement and administer laws, ordinances and regulations for that community.

CLOSED BASIN LAKE means a lake with no outlet or a lake with inadequate regulated or elevated outlets.

COMMUNITY means any State or area or political subdivision thereof, or any Indian tribe or authorized tribal organization, or Alaska Native village or authorized native organization which has authority to adopt and enforce floodplain management regulations for the areas within its jurisdiction.

CRITERIA means the comprehensive criteria for land management and use for flood-prone areas developed under 42 U.S.C. 4102 for the purposes set forth in this ordinance.

CRITICAL FEATURE means an integral and readily identifiable part of a flood protection system, without which the flood protection provided by the entire system would be compromised.

CURVILINEAR LINE means the border on either a FHBM or FIRM that delineates the special flood, mudslide (i.e., mudflow) and/or flood-related erosion hazard areas and consists of a curved or contour line that follows the topography.

DEVELOPED AREA means an area of a community that is:

(1) A primarily urbanized, built-up area that is a minimum of 20 contiguous acres, has basic urban infrastructure, including roads, utilities, communications, and public facilities, to sustain industrial, residential and commercial activities; and

(a) Within which 75 percent or more of the parcels, tracts, or lots contain commercial, industrial, or residential structures or uses; or

(b) Is a single parcel, tract, or lot in which 75 percent of the area contains existing commercial or industrial structures or uses; or

(c) Is a subdivision developed at a density of at least two residential structures per acre within which 75 percent or more of the lots contain existing residential structures at the time the designation is adopted.

(2) Undeveloped parcels, tracts, or lots, the combination of which is less than 20 acres and contiguous on at least three sides to areas meeting the criteria of paragraph (1) at the time the designation is adopted.

(3) A subdivision that is a minimum of 20 contiguous acres that has obtained all necessary government approvals, provided that the actual *start of construction* of structures has occurred on at least 10 percent of the lots or remaining lots of a subdivision or 10 percent of the maximum building coverage or remaining building coverage allowed for a single lot subdivision at the time the designation is adopted, and construction of structures is underway. Residential subdivisions must meet the density criteria in paragraph (1)(c).

DEVELOPMENT means any man-made change to improved and unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials.

ELIGIBLE COMMUNITY OR PARTICIPATING COMMUNITY means a community for which the Federal Insurance Administrator has authorized the sale of flood insurance under the NFIP.

ELEVATED BUILDING means, for insurance purposes, a non-basement building which has its lowest elevated floor raised above ground level by foundation walls, shear walls, posts, piers, pilings or columns.

EMERGENCY PROGRAM means the initial phase of a community's participation in the NFIP, as prescribed by Section 1306 of the Act.

EROSION means the process of either rapid or gradual wearing away of land masses.

EXCEPTION means a waiver from the provisions of this ordinance directed to a community which relieves it from the requirements of a rule, regulation, order or other determination made or issued pursuant to the Act.

EXCEPTIONAL HARDSHIP means, for the purposes of *variance* from this ordinance, the exceptional difficulty that would result from a failure to grant the requested variance. The hardship must be exceptional, unusual and specific to the property involved, not to the personal circumstances of the permit applicant.

EXISTING CONSTRUCTION means, for the purposes of determining insurance rates, structures for which the “start of construction commenced before the effective date of the FIRM or before January 1, 1975, for FIRMs effective before that date.” *Existing construction* may also be referred to as “existing structures.”

EXISTING MANUFACTURED HOME PARK OR SUBDIVISION means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured 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 floodplain management regulations adopted by a community.

EXISTING STRUCTURES —see *Existing Construction*.

EXPANSION TO AN EXISTING MANUFACTURED HOME PARK OR SUBDIVISION means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets and either final site grading or the pouring of concrete pads).

FLOOD OR FLOODING means:

(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:

(a) The overflow of inland or tidal waters.

(b) The unusual and rapid accumulation or runoff of surface waters from any source.

(c) Mudslides (i.e., mudflows) which are proximately caused by flooding as defined in paragraph (1)(b) of this definition and are akin to a river of liquid and flowing mud on the surfaces of normally dry land areas, as when earth is carried by a current of water and deposited along the path of the current.

(2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding as defined in paragraph (1)(a) of this definition.

FLOOD DAMAGE-RESISTANT MATERIAL means any building product [material, component or system] capable of withstanding direct and prolonged contact with flood waters without sustaining significant damage. “Prolonged

contact” means at least 72 hours and “significant damage” means any damage requiring more than cosmetic repair (including cleaning, sanitizing and resurfacing – sanding, repair of joints or repainting – of the material).

FLOOD ELEVATION DETERMINATION means a determination by the Federal Insurance Administrator of the water surface elevations of the *base flood*, that is, the flood level that has a 1-percent or greater chance of occurrence in any given year.

FLOOD ELEVATION STUDY—see *Flood Insurance Study*.

FLOOD HAZARD BOUNDARY MAP (FHBM) means an official map of a community, issued by the Federal Insurance Administrator, where the boundaries of the flood or mudslide (i.e., mudflow)-related erosion areas having special hazards have been designated as Zones A, M and/or E.

FLOOD INSURANCE means the insurance coverage provided under the *Program*.

FLOOD INSURANCE RATE MAP (FIRM) means an official map of a community on which the Federal Insurance Administrator has delineated both the *special hazard areas* and the risk premium zones applicable to the community. A FIRM that has been made available digitally is called a Digital Flood Insurance Rate Map (DFIRM).

FLOOD INSURANCE STUDY (FIS) means an examination, evaluation and determination of flood hazards and, if appropriate, corresponding water surface elevations, or an examination, evaluation and determination of mudslide (i.e., mudflow) and/or flood-related erosion hazards.

FLOOD OPENING is a non-engineered or engineered opening in foundation walls and walls of enclosures that relieve hydrostatic loads to meet basic performance requirements to prevent flotation, collapse and lateral movement due to flood forces. Non-engineered openings do not have moving parts and may be used to meet this ordinance’s prescriptive requirement for 1 square inch of net open area for every square foot of enclosed area. Engineered openings may be used if designed and certified by a registered design professional as meeting certain performance characteristics.

FLOODPLAIN OR FLOOD-PRONE AREA means any land area susceptible to being inundated by water from any source (see *Flood* or *Flooding*).

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 plans, flood control works and floodplain management regulations.

FLOODPLAIN MANAGEMENT REGULATIONS means zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such state or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

FLOOD PROTECTION SYSTEM means those physical structural works for which funds have been authorized, appropriated and expended and which have been constructed specifically to modify flooding in order to reduce the extent of the area within a community subject to a *special flood hazard* and the extent of the depths of associated flooding. Such a system typically includes hurricane tidal barriers, dams, reservoirs, levees or dikes. These specialized flood modifying works are those constructed in conformance with sound engineering standards.

FLOODPROOFING means any combination of structural and non-structural additions, changes or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

FLOOD-RELATED EROSION means the collapse or subsidence of land along the shore of a lake or other body of water as a result of undermining caused by waves or currents of water exceeding anticipated cyclical levels, or suddenly caused by an unusually high water level in a natural body of water accompanied by a severe storm or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in *flooding*.

FLOOD-RELATED EROSION AREA OR FLOOD-RELATED, EROSION-PRONE AREA means a land area adjoining the shore of a lake or other body of water, which, due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

FLOOD-RELATED EROSION AREA MANAGEMENT means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not limited to emergency preparedness plans, flood-related erosion control works and floodplain management regulations.

FLOODWAY — see *Regulatory Floodway*.

FLOODWAY ENCROACHMENT LINES mean the lines marking the limits of floodways on Federal, State and local floodplain maps.

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, bridge openings and the hydrological effect of urbanization of the watershed.

FUNCTIONALLY DEPENDENT USE means a use which cannot perform its intended purpose unless it is located or carried out in close proximity to water. The term includes only docking facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and ship building and ship repair facilities, but does not include long-term storage or related manufacturing facilities.

HIGHEST ADJACENT GRADE means the highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

HISTORIC STRUCTURE means any structure that is:

(1) Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;

(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 in the Texas Historical Commission's inventory as a Recorded Texas Historic Landmark or State Antiquities Landmark; or

(4) Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:

(a) By the Texas Historical Commission; or

(b) Directly by the Secretary of the Interior in states without approved programs.

LEVEE means a man-made structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control or divert the flow of water so as to provide protection from temporary flooding.

LEVEE SYSTEM means a flood protection system which consists of a levee, or levees, and associated structures such as closure and drainage devices which are constructed and operated in accordance with sound engineering practices.

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 in this ordinance.

MANUFACTURED HOME means a structure transportable in one 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. The term "manufactured home" does not include a *recreational vehicle*.

MANUFACTURED HOME PARK OR SUBDIVISION means a parcel (or contiguous parcels) of land divided into two or more manufactured home lots for rent or for sale.

MAP means the FHBM or the FIRM for a community issued by the Agency.

MEAN SEA LEVEL means, for purposes of the NFIP, the North American Vertical Datum (NAVD) of 1988 or other datum to which base flood elevations shown on a community's FIRM are referenced.

MIXED USE BUILDING means a building that has both residential and non-residential uses.

MUDSLIDE (I.E., MUDFLOW) describes a condition where there is a river, flow or inundation of liquid mud down a hillside, usually as a result of a dual condition of loss of brush cover, and the subsequent accumulation of water on the ground preceded by a period of unusually heavy or sustained rain. A mudslide (i.e., mudflow) may occur as a distinct phenomenon while a landslide is in progress and will be recognized as such by the Administrator only if the mudflow, and not the landslide, is the proximate cause of damage that occurs.

MUDSLIDE (I.E., MUDFLOW) AREA MANAGEMENT means the operation of an overall program of corrective and preventive measures for reducing mudslide (i.e., mudflow) damage, including but not limited to emergency preparedness plans, mudslide control works and floodplain management regulations.

MUDSLIDE (I.E., MUDFLOW)-PRONE AREA means an area with land surfaces and slopes of unconsolidated material where the history, geology and climate indicate a potential for mudflow.

NEW CONSTRUCTION means, for the purpose 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.

NEW MANUFACTURED HOME PARK OR SUBDIVISION means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured 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 floodplain management regulations adopted by a community.

NON-RESIDENTIAL BUILDING means a commercial or mixed-use building where the primary use is commercial or non-habitational.

ONE-PERCENT ANNUAL CHANCE FLOOD —see *Base Flood*.

PARTICIPATING COMMUNITY, also known as an *eligible community*, means a community in which the Administrator has authorized the sale of flood insurance.

PERSON includes any individual or group of individuals, corporation, partnership, association or any other entity, including State and local governments and agencies.

PLAYA means a dry, vegetation-free, flat area at the lowest part of an undrained desert basin. It is a location where ephemeral lakes form during wet periods.

PRINCIPALLY ABOVE GROUND means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

PROGRAM means the National Flood Insurance Program authorized by 42 U.S.C. 4001 through 4128.

RECESSION RATE is the average rate, in feet per year, at which an eroding shoreline moves landward.

RECREATIONAL VEHICLE means a vehicle which is:

- (1) Built on a single chassis;

- (2) 400 square feet or less when measured at the largest horizontal projections;
- (3) Designed to be self-propelled or permanently towable by a light duty truck; and
- (4) Designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel or seasonal use.

REFERENCE FEATURE is the receding edge of a bluff or eroding frontal dune, or if such a feature is not present, the normal high-water line or the seaward line of permanent vegetation if a high-water line cannot be identified.

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 a designated height.

REMEDY A VIOLATION means to bring the structure or other development into compliance with State or local floodplain management regulations, or, if this is not possible, to reduce the impacts of its noncompliance. Ways that impacts may be reduced include protecting the structure or other affected development from flood damages, implementing the enforcement provisions of the ordinance or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

RESIDENTIAL BUILDING means a non-commercial building designed for habitation by one or more families or a mixed use building that qualifies as a single-family, two- to four-family or other residential building.

RIVERINE means relating to, formed by or resembling a river (including tributaries), stream, brook, etc.

SHEET FLOW AREA —see *Area of Shallow Flooding*.

SINGLE-FAMILY DWELLING means either:

(1) A residential single-family building in which the total floor area devoted to non-residential uses is less than 50 percent of the building's total floor area; or

(2) A single-family residential unit within a two- to four-family building, other residential building, business or non-residential building, in which commercial uses within the unit are limited to less than 50 percent of the unit's total floor area.

60-YEAR SETBACK means a distance equal to 60 times the average annual long term recession rate (erosion) at a site, measured from the reference feature.

SPECIAL FLOOD HAZARD AREA —see *Area of Special Flood Hazard*.

SPECIAL HAZARD AREA means an area having special flood, mudslide (i.e., mudflow) or flood-related erosion hazards and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, A99, AH, VO, V1-30, VE, V, M or E.

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 180 days of the permit date. The actual start means either 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 basement, footings, piers or foundations or the erection of temporary forms; nor does it include the installation on the property of *accessory structures*, 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.

STORM CELLAR means a space below grade used to accommodate occupants of the structure and emergency supplies as a means of temporary shelter against severe tornado or similar windstorm activity.

STRUCTURE means, for floodplain management purposes, a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

Structure, for insurance purposes, means:

- (1) A building with two or more outside rigid walls and a fully secured roof that is affixed to a permanent site;
- (2) A manufactured home (a “manufactured home,” also known as a “mobile home,” is a structure built on a permanent chassis, transported to its site in one or more sections, and affixed to a permanent foundation); or

(3) A travel trailer without wheels, built on a chassis and affixed to a permanent foundation, that is regulated under the community's floodplain management and building ordinances or laws.

For the latter purpose, "structure" does not mean a recreational vehicle or a park trailer or other similar vehicle, except as described in paragraph (3) of this definition, or a gas or liquid storage tank.

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 50 percent of the market value of the structure before the damage occurred.

SUBSTANTIAL IMPROVEMENT means any reconstruction, rehabilitation, addition or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before *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*.

30-YEAR SETBACK means a distance equal to 30 times the average annual long term recession rate (erosion) at a site, measured from the reference feature.

VARIANCE means a grant of relief by a community from the terms of a floodplain management regulation.

VIOLATION means the failure of a structure or other development to be fully compliant with the community's floodplain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in this flood damage prevention ordinance is presumed to be in violation until such time as that documentation is provided.

WATER SURFACE ELEVATION means the height, in relation to the North American Vertical Datum (NAVD) of 1988 (or other datum, where specified), of floods of various magnitudes and frequencies in the floodplains of coastal or riverine areas.

ZONE OF IMMINENT COLLAPSE means an area subject to erosion adjacent to the shoreline of an ocean, bay or lake and within a distance equal to 10 feet plus 5 times the average annual long-term erosion rate for the site, measured from the reference feature.

ARTICLE 3

GENERAL PROVISIONS

SECTION A. LANDS TO WHICH THIS ORDINANCE APPLIES

The ordinance shall apply to all areas of special flood hazard with the jurisdiction of Caldwell County.

SECTION B. BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "*Flood Insurance Study (FIS) for Caldwell County TX and Incorporated Areas,*" dated Effective 6-10-2026, with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated 6-10-2026, and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

SECTION C. ESTABLISHMENT OF DEVELOPMENT PERMIT

A Floodplain Development Permit shall be required for all proposed construction and other development, including the placement of manufactured homes, within Zones A1-30, A99, AE, A, AH and AO on the community's FIRM and any development within Zone A on the community's FHBM or FIRM to ensure conformance with the provisions of this ordinance.

SECTION D. COMPLIANCE

No structure or land shall hereafter be located, altered or have its use changed without full compliance with the terms of this ordinance and other applicable regulations.

SECTION E. ABROGATION AND GREATER RESTRICTIONS

This ordinance is not intended to repeal, abrogate or impair any existing ordinances, easements, covenants or deed restrictions. However, where this ordinance and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

SECTION F. INTERPRETATION

In the interpretation and application of this ordinance, all provisions shall be:

- (1) Considered as minimum requirements;
- (2) Liberally construed in favor of the governing body; and
- (3) Deemed neither to limit nor repeal any other powers granted under State statutes.

SECTION G. WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. On rare occasions, greater floods can and will occur, and flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazard or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the community or any official or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

ARTICLE 4

ADMINISTRATION

SECTION A. DESIGNATION OF THE FLOODPLAIN ADMINISTRATOR

The Director of Sanitation is hereby appointed the Floodplain Administrator to administer and implement the provisions of this ordinance and other appropriate sections of 44 CFR (Emergency Management and Assistance - Insurance and Hazard Mitigation - Criteria for Land Management and Use) pertaining to floodplain management.

SECTION B. DUTIES & RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR

Duties and responsibilities of the Floodplain Administrator shall include, but not be limited to, the following:

(1) Maintain and hold open for public inspection all records pertaining to the provisions of this ordinance.

(2) Maintain for public inspection and furnish, upon request, for the determination of applicable flood insurance risk premium rates within all areas having special flood hazards identified on a FHBM or FIRM, any certificates of floodproofing and information on the elevation (in relation to mean sea level) of the level of the lowest floor (including basement) of all new or substantially improved structures, and include whether or not such structures contain a basement, and, if the structure has been floodproofed, the elevation (in relation to mean sea level) to which the structure was floodproofed.

(3) Review permit application to ensure that the proposed building site project, including the placement of manufactured homes, will be reasonably safe from flooding.

(4) Review, approve or deny all applications for development permits required by adoption of this ordinance.

(5) Review permits for proposed development to assure that all necessary permits have been obtained from those Federal, State or local governmental agencies (including Section 404 of the Federal Water Pollution Control Act Amendments of 1972, 33 U.S.C. 1334) from which prior approval is required.

(6) Obtain, review and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, including data developed pursuant to Article 5 of this ordinance, as criteria for requiring that new construction, substantial improvement or other development in Zone A on the community's FHBM or FIRM meet the standards in Article 5, Section B and Article 5, Section E of this ordinance;

(7) Where base flood elevation data are utilized within Zone A or A99 on the community's FHBM or FIRM:

(a) Obtain the elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures; and

(b) Obtain, if the structure has been floodproofed in accordance with Article 5, Section B of this ordinance, the elevation (in relation to mean sea level) to which the structure was floodproofed; and

(c) Maintain a record of all such information with the official designated by the community under § 59.22 (a)(9)(iii).

(8) Where interpretation is needed as to the exact location of the boundaries of the areas of special flood hazard (for example, where there appears to be a conflict between a mapped boundary and actual field conditions) the Floodplain Administrator shall make the necessary interpretation.

(a) Where Base Level Engineering is available:

(i) Base Level Engineering data shall be reviewed and reasonably used in FEMA-identified Special Flood Hazard Areas where base flood elevations and floodway data have not been identified and in areas where FEMA has not identified Special Flood Hazard Areas.

(ii) Base Level Engineering data may be used if such source shows increased base flood elevations and/or larger floodway areas than are shown on FIRMs and in Flood Insurance Studies.

(iii) Base Level Engineering data may be reasonably used if such source shows an area as flood-prone that is not shown as flood-prone on FIRMs and Flood Insurance Studies.

(9) Notify, in riverine situations, adjacent communities, the State Coordinating Agency and the Texas Commission on Environmental Quality (TCEQ) prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Insurance Administrator.

(10) Assure that the flood carrying capacity within the altered or relocated portion of any watercourse is maintained.

(11) When base flood elevation data has not been provided in accordance with Article 3, Section B, the Floodplain Administrator shall obtain, review and reasonably utilize any base flood elevation data and floodway data available from a Federal, State or other source in order to administer the provisions of Article 5.

(12) When a regulatory floodway has not been designated, the Floodplain Administrator must require that no new construction, substantial improvements or other development (including fill) shall be permitted within

Zones A1-30 and AE on the community's 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 1 foot at any point within the community.

(13) Notwithstanding any other provisions of this ordinance, a community may approve certain development in Zones A1-30, AE and AH on the community's FIRM which increase the water surface elevation of the base flood by more than 1 foot, provided that the community first applies for a conditional FIRM revision, fulfills the requirements for such a revision as established under the provisions of § 65.12 and receives the approval of the Federal Insurance Administrator.

SECTION C. PERMIT PROCEDURES

(1) Application for a Floodplain Development Permit shall be presented to the Floodplain Administrator on forms furnished by him/her and may include, but not be limited to, plans in duplicate drawn to scale showing the location, dimensions and elevation of proposed landscape alterations, existing and proposed structures, including the placement of manufactured homes, and the location of the foregoing in relation to areas of special flood hazard, mudslide (i.e. mudflow)-prone areas and flood-related erosion hazard. Additionally, the following information is required:

(a) Elevation (in relation to mean sea level) of the lowest floor (including basement) of all new and substantially improved structures;

(b) When engineered flood openings are used, certification that engineered flood openings are designed to meet the minimum requirements of Article 5, Section B (3) to automatically equalize hydrostatic flood forces;

(c) Elevation in relation to mean sea level to which any nonresidential structure shall be floodproofed;

(d) Certification from a registered professional engineer or architect that the nonresidential floodproofed structure shall meet the floodproofing criteria of Article 5, Section A and Section B (2) [See NFIP Technical Bulletin 3, Requirements for the Design and Certification of Dry Floodproofed Non-Residential and Mixed-Use Buildings];

(e) Description of the extent to which any watercourse or natural drainage will be altered or relocated as a result of proposed development; and

(f) Maintain a record of all such information in accordance with Article 4, Section B (1).

(2) Approval or denial of a Floodplain Development Permit by the Floodplain Administrator shall be based on all of the provisions of this ordinance and the following relevant factors:

(a) The danger to life and property due to flooding or erosion damage;

(b) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;

(c) The danger that materials may be swept onto other lands to the injury of others;

(d) The compatibility of the proposed use with existing and anticipated development;

(e) The safety of access to the property in times of flood for ordinary and emergency vehicles;

(f) The costs of providing governmental services during and after flood conditions, including maintenance and repair of streets and bridges and public utilities and facilities such as sewer, gas, electrical and water systems;

(g) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site;

(h) The necessity to the facility of a waterfront location, where applicable;

(i) The availability of alternative locations not subject to flooding or erosion damage for the proposed use.

(3) Determine whether the proposed site and improvements will be reasonably safe from mudslides (i.e., mudflows) if proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards. Factors to be considered in making such a determination should include but not be limited to:

(a) The type and quality of soils;

- (b) Any evidence of ground water or surface water problems;
- (c) The depth and quality of any fill;
- (d) The overall slope of the site; and
- (e) The weight that any proposed structure will impose on the slope.

(4) If a proposed site and improvements are in a location that may have mudslide (i.e., mudflow) hazards, the following information is required:

(a) A site investigation and further review be made by persons qualified in geology and soils engineering;

(b) The proposed grading, excavations, new construction and substantial improvements are adequately designed and protected against mudslide (i.e., mudflow) damages;

(c) The proposed grading, excavations, new construction and substantial improvements do not aggravate the existing hazard by creating either on-site or off-site disturbances; and

(d) Drainage, planting, watering and maintenance be such as not to endanger slope stability.

(5) Determine whether the proposed site alterations and improvements will be reasonably safe from flood-related erosion and will not cause flood-related erosion hazards or otherwise aggravate the existing flood-related erosion hazard; and

(a) If a proposed improvement is found to be in the path of flood-related erosion or to increase the erosion hazard, require the improvement to be relocated or adequate protective measures to be taken which will not aggravate the existing erosion hazard.

SECTION D. VARIANCE PROCEDURES

(1) The Appeal Board, as established by the community, shall hear and render judgment on requests for variances from the requirements of this ordinance.

(2) The Appeal Board shall hear and render judgment on an appeal only when it is alleged that there is an error in any requirement, decision, or

determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.

(3) Any person or persons aggrieved by the decision of the Appeal Board may appeal such decision in the courts of competent jurisdiction.

(4) The Floodplain Administrator shall maintain a record of all actions involving an appeal and shall report variances to the Federal Emergency Management Agency upon request.

(5) Variances may be issued for new construction and substantial improvements to be erected on a lot of 1/2-acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing the relevant factors in Section C (2) of this Article have been fully considered. As the lot size increases beyond 1/2-acre, the technical justification required for issuing the variance increases.

(6) Upon consideration of the factors noted above and the intent of this ordinance, the Appeal Board may attach such conditions to the granting of variances as it deems necessary to further the purpose and objectives of this ordinance (Article 1, Section C).

(7) Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.

(8) Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

(9) Prerequisites for granting variances:

(a) Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.

(b) Variances shall only be issued upon:

(i) Showing a 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 a variance will not result in increased flood heights, additional threats to public safety or extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.

(c) Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with the lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

(10) Variances may be issued by a community for new construction and substantial improvements and for other development necessary for the conduct of a functionally dependent use, provided that:

(a) The criteria outlined in Section D (1-9) of this Article are met; and

(b) The structure or other development is protected by methods that minimize flood damages during the base flood and create no additional threats to public safety.

(11) Variances may be issued in flood-prone, mudslide (i.e., mudflow)-prone and flood-related, erosion-prone communities providing:

(a) The requirement that each flood-prone, mudslide (i.e., mudflow)-prone and flood-related erosion prone community must adopt and submit adequate floodplain management regulations as a condition of initial and continued flood insurance eligibility is statutory and cannot be waived, and such regulations shall be adopted by a community within the time periods specified in 44 CFR § 60.3, § 60.4 or § 60.5. However, certain exceptions from the standards contained in this subpart may be permitted where the Federal Insurance Administrator recognizes that, because of extraordinary circumstances, local conditions may render the application of certain standards the cause for exceptional hardship and gross inequity for a particular community. Consequently, a community proposing the adoption of floodplain management regulations which vary from the standards set forth in 44 CFR § 60.3, § 60.4 or § 60.5 shall explain in writing to the Federal Insurance Administrator the nature and extent of and the reasons for the exception request and shall include sufficient supporting economic, environmental, topographic, hydrologic and other scientific and technical data, and data with respect to the impact on public safety and the environment.

(b) The Federal Insurance Administrator shall prepare a Special Environmental Clearance to determine whether the proposal for an exception under Section D (10) of this Article will have significant impact on the human environment. The decision whether an Environmental Impact Statement (EIS) or other environmental document will be prepared, will be made in accordance with applicable environmental and historic preservation laws, regulations, Executive Orders and Agency policy. Ninety (90) or more days may be required for an environmental quality clearance if the proposed exception will have significant impact on the human environment thereby requiring an EIS.

(12) Variances may be issued for accessory and agricultural structures. A variance is authorized to be issued for the construction or substantial improvement of at-grade accessory structures and at-grade agricultural structures provided the requirements of this section are satisfied:

(a) **Accessory structures.** A determination that the proposed accessory structure:

(i) Represents minimal investment and has low damage potential (amount of physical damage, contents damage and loss of function).

(ii) Is larger than the size limits specified in Article 5, Section B (6)(e).

(iii) Complies with the wet floodproofing construction requirements of paragraph Article 4, Section D 12(c) below.

(b) **Agricultural structures.** A determination that the proposed agricultural structure:

(i) Is used exclusively in connection with the production, harvesting, storage, raising or drying of agricultural commodities and livestock, or storage of tools or equipment used in connection with these purposes or uses, and will be restricted to such exclusive uses.

(ii) Has low damage potential (amount of physical damage, contents damage and loss of function).

(iii) Does not increase risks and pose a danger to public health, safety and welfare if flooded and contents are released, including but not limited to the effects of flooding on manure storage, livestock confinement operations, liquified natural gas terminals and production and storage of highly volatile, toxic or water-reactive materials.

(iv) Is an aquaculture structure that is dependent on proximity to water if located in a coastal high-hazard area (Zones V, VE, V1-30 and VO).

(v) Complies with the wet floodproofing construction requirements of Article 4, Section D 12(c) below.

(c) Wet floodproofing construction requirements. Wet floodproofed structures shall:

(i) Be anchored to resist flotation, collapse, and lateral movement.

(ii) Have flood damage-resistant materials below the base flood elevation in compliance with the requirements of Article 5 of this ordinance.

(iii) Have mechanical, electrical, and utility equipment in compliance with the requirements of Article 5 of this ordinance.

(iv) In special flood hazard areas other than coastal high hazard areas, have flood openings in compliance with the requirements of Article 5 of this ordinance.

ARTICLE 5

PROVISIONS FOR FLOOD HAZARD REDUCTION

SECTION A. GENERAL STANDARDS

In all areas of special flood hazard within the following provisions are required for all new construction and substantial improvements:

(1) All new construction or substantial improvements shall be designed (or modified) and adequately anchored to prevent flotation, collapse and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy;

(2) All new construction or substantial improvements shall be constructed by methods and practices that minimize flood damage;

(3) All new construction or substantial improvements shall be constructed with materials resistant to flood damage; only Class 4 and Class 5 materials are acceptable for areas below the base flood elevation in buildings in

special flood hazard areas [see NFIP Technical Bulletin 2, Flood Damage-Resistant Materials Requirements];

(4) All new construction or substantial improvements shall 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) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;

(6) All new or replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from the systems into flood waters; and,

(7) All new or replacement on-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

SECTION B. SPECIFIC STANDARDS

In all areas of special flood hazard where base flood elevation data has been provided as set forth in (i) Article 3, Section B, (ii) Article 4, Section B (8) or (iii) Article 5, Section C (3), the following provisions are required:

(1) **Residential Construction** – All new construction and substantial improvement of any residential structures within Zones A1-30, AE, A and AH on the community's FIRM shall have the lowest floor (including basement) elevated to or above the base flood elevation. A registered professional engineer, architect or land surveyor shall submit a certification to the Floodplain Administrator that the standard of this subsection as proposed in Article 4, Section C (1) (a), is satisfied.

(2) **Non-residential Construction** – All new construction and substantial improvements of any nonresidential structures within Zones A1-30, AE, A and AH on the community's FIRM shall

(a) Have the lowest floor (including basement) elevated to or above the base flood level; or

(b) Together with attendant utility and sanitary facilities, be designed so that, below the base flood level, 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; and

(c) Where a nonresidential structure is intended to be made watertight below the base flood elevation:

(i) A registered professional engineer or architect shall develop and/or review structural design, specifications and plans for the construction and shall certify that the design and methods of construction are in accordance with accepted standards of practice for meeting the provisions of Section B (2) (a-b) or Section D in this Article.

(ii) A record of such certification which includes the specific elevation (in relation to mean sea level) to which such structures are floodproofed shall be maintained by the Floodplain Administrator.

(3) **Enclosures** – All new construction and substantial improvements with fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or meet or exceed the following minimum criteria: [Note: See NFIP Technical Bulletin #1 – Requirements for Flood Openings in Foundation Walls and Walls of Enclosures.]

(a) A minimum of two openings on separate walls having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding shall be provided (for non-engineered flood openings), or the flood openings shall be engineered flood openings that are designed and certified by a registered design professional to automatically allow entry and exit of flood waters; the certification requirement may be satisfied by an individual certification or an Evaluation Report issued by the ICC Evaluation Service, Inc.

(b) The bottom of all openings shall be no higher than 1-foot above grade.

(c) Openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of flood waters.

(4) **Manufactured Homes -**

(a) All manufactured homes to be placed within Zone A on a community's FHBM or FIRM shall 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 and lateral movement. Methods of anchoring may include, but are not limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable State and local anchoring requirements for resisting wind forces.

(b) All manufactured homes that are placed or substantially improved within Zones A1-30, AH and AE on the community's FIRM on sites shall be:

(i) Outside of a manufactured home park or subdivision;

(ii) In a new manufactured home park or subdivision;

(iii) In an expansion to an existing manufactured home park or subdivision; or

(iv) In an existing manufactured home park or subdivision on which a manufactured home has incurred substantial damage as a result of a flood, be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

(c) All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH and AE on the community's FIRM that are not subject to the provisions of paragraph (4) of this section shall be elevated so that either:

(i) The lowest floor of the manufactured home is at or above the base flood elevation; or

(ii) The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

(5) **Recreational Vehicles** - Recreational vehicles placed on sites within Zones A1-30, AH and AE on the community's FIRM shall be 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 permit requirements of Article 4, Section C (1), and the elevation and anchoring requirements for *manufactured homes* in paragraph (4) of this Article.

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.

(6) **Detached Accessory Structures** – Detached accessory structures used only for parking of vehicles and storage are permitted at grade if the following are satisfied:

(a) In special flood hazard areas (Zones A, AE, AH, AO and A1-30), are not larger than a one-story, two-car garage and walls have flood openings in compliance with the requirements of Article 5, Section B (3) above;

(b) Are anchored to resist flotation, collapse and lateral movement;

(c) Flood damage-resistant materials used below the base flood elevation comply with the requirements of Article 5, Section A (3);

(d) Mechanical, electrical and utility equipment comply with the requirements of Article 5, Section A (4); and

(e) Accessory structures shall be limited to not more than 600 square feet in total floor area.

SECTION C. STANDARDS FOR SUBDIVISION PROPOSALS

(1) All subdivision proposals including the placement of manufactured home parks and subdivisions shall be consistent with Article 1, Sections B, C and D of this ordinance.

(2) All proposals for the development of subdivisions including the placement of manufactured home parks and subdivisions shall meet

Floodplain Development Permit requirements of Article 3, Section C; Article 4, Section C; and the provisions of Article 5 of this ordinance.

(3) Base flood elevation data shall be generated for and included as part of subdivision proposals and other proposed development (including proposals for manufactured home parks and subdivisions) which is greater than 50 lots or 5 acres, whichever is lesser.

(4) All subdivision proposals, including the placement of manufactured home parks and subdivisions, shall have adequate drainage provided to reduce exposure to flood hazards.

(5) All subdivision proposals including the placement of manufactured home parks and subdivisions shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize or eliminate flood damage.

SECTION D. STANDARDS FOR AREAS OF SHALLOW FLOODING (AO/AH ZONES)

Located within the areas of special flood hazard established in Article 3, Section B are areas designated as shallow flooding. These areas have special flood hazards associated with flood depths of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow; therefore, the following provisions apply:

(1) All new construction and substantial improvements of **residential** structures have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified), or

(2) All new construction and substantial improvements of **non-residential** structures:

(a) Have the lowest floor (including basement) elevated to or above the base flood elevation or the highest adjacent grade at least as high as the depth number specified in feet on the community's FIRM (at least 2 feet if no depth number is specified); or

(b) Together with attendant utility and sanitary facilities, be designed to be completely floodproofed to that level to meet the floodproofing standards specified in Article 5, Sections A and B (2).

(3) A registered professional engineer or architect shall submit a certification to the Floodplain Administrator that the standards of this Section, as proposed in Article 4, Section C are satisfied.

(4) Adequate drainage paths shall be provided around structures on slopes to guide flood waters around and away from proposed structures.

SECTION E. FLOODWAYS

Floodways - located within areas of special flood hazard established in Article 3, Section B - are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters, which carry debris, potential projectiles and erosion potential, the following provisions shall apply:

(1) 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 1 foot at any point.

(2) Prohibit 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 5, Section E (1) above is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of Article 5.

(4) Notwithstanding any other provisions of this ordinance, a community may permit encroachments within the adopted regulatory floodway that would result in an increase in base flood elevations, provided that the community first applies for a conditional FIRM and floodway revision, fulfills the requirements for such revisions as established under the provisions of § 65.12 and receives the approval of the Federal Insurance Administrator.

SECTION F. MUDSLIDE (I.E., MUDFLOW)-PRONE AREAS

When the Federal Insurance Administrator has delineated Zone M on the community's FIRM, the community shall:

(1) Meet the requirements of Article 4, Section C; and

(2) Adopt and enforce a grading ordinance or regulation in accordance with data supplied by the Federal Insurance Administrator which:

(a) Regulates the location of foundation systems and utility systems of new construction and substantial improvements;

(b) Regulates the location, drainage and maintenance of all excavations, cuts and fills and planted slopes;

(c) Provides special requirements for protective measures including but not necessarily limited to retaining walls, buttress fills, sub-drains, diverter terraces, benchings, etc.; and

(d) Requires engineering drawings and specifications to be submitted for all corrective measures, accompanied by supporting soils engineering and geology reports. Guidance may be obtained from the provisions of the 1973 edition and any subsequent edition of the Uniform Building Code, Sections 7001 through 7006 and 7008 through 7015. The Uniform Building Code is published by the International Conference of Building Officials, 50 South Los Robles, Pasadena, California 91101.

SECTION G. FLOOD-RELATED, EROSION-PRONE AREAS

When the Federal Insurance Administrator has delineated Zone E on the community's FIRM, the community shall:

(1) Meet the requirements of Article 4, Section C; and of this section; and

(2) A setback shall be provided for all new development from the ocean, lake, bay, riverfront or other body of water to create a safety buffer consisting of a natural vegetative or contour strip. This buffer will be designated by the Federal Insurance Administrator according to the flood-related erosion hazard and erosion rate, in conjunction with the anticipated "useful life" of structures and depending upon the geologic, hydrologic, topographic and climatic characteristics of the community's land. The buffer may be used for suitable open space purposes, such as for agricultural, forestry, outdoor recreation and

wildlife habitat areas, and for other activities using temporary and portable structures only.


SECTION H. SEVERABILITY

If any section, clause, sentence or phrase of this Ordinance is held to be invalid or unconstitutional by any court of competent jurisdiction, then said holding shall in no way affect the validity of the remaining portions of this Ordinance.

SECTION I. PENALTIES FOR NON-COMPLIANCE

No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) 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 \$500 for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent Caldwell County from taking such other lawful action as is necessary to prevent or remedy any violation.

SECTION J. CERTIFICATION OF ADOPTION

APPROVED: 
(community official) *Caldwell County Judge*

PASSED: May 14, 2026
(adoption date)

ORDINANCE BECOMES EFFECTIVE: June 10, 2026
(effective date)

I, the undersigned, Judge Hoppy Haden, do hereby certify that the above is a true and correct copy of an ordinance duly adopted by the Commissioners Court at a regular meeting duly convened on {date}.


(Signature of Certifying Official)

{SEAL}



RE: Caldwell County FIRM update adoption deadline - 06/10/2026

From Kate deGennaro <Kate.deGennaro@twdb.texas.gov>

Date Fri 4/24/2026 1:02 PM

To Lindsey Oskoui <LOskoui@kleinfelder.com>

External Email

UPDATE:

Map effective date is still 6/10. Please go ahead and get it on commissioners court agenda.

From: Kate deGennaro

Sent: Friday, April 24, 2026 12:25 PM

To: 'Lindsey Oskoui' <LOskoui@kleinfelder.com>

Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

Hi, Lindsey.

The ordinance looks great and ready for adoption. I had heard a rumor that FEMA would be back online this week, but they canceled our regular monthly meeting yesterday. So we are still in limbo regarding the map update timeline and if that June 10 date will be the effective date. On Monday, I will speak with the manager of the TWDB mapping program to see if he suggests we stick with that June 10 date. I will let him know that communities need to put the adoption on their commissioners court/city council agenda as soon as possible. Thank you for your patience.

Respectfully,

Kate de Gennaro, CFM, MUP

Flood Outreach Specialist

Flood Science/Community Assistance Division

Texas Water Development Board

512.354.6075

Kate.deGennaro@twdb.texas.gov

www.twdb.texas.gov

TEXAS FLOOD.org

From: Lindsey Oskoui <LOskoui@kleinfelder.com>

Sent: Thursday, April 23, 2026 10:27 AM

To: Kate deGennaro <Kate.deGennaro@twdb.texas.gov>

Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

External: Beware of links/attachments.

Hi there,

Checking in regarding whether you had any comments on the 4/15 draft. I'm working with the County on the agenda line-up for the May Commissioners Court meetings.

Thanks,

Lindsey

From: Lindsey Oskoui
Sent: Wednesday, April 15, 2026 5:10 PM
To: Kate deGennaro <Kate.deGennaro@twdb.texas.gov>
Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

Kate,

Echoing my voicemail just a bit ago, could you please give me a ring tomorrow regarding what is needed for the maps portion of the update?

Also, I have attached a draft version of the model ordinance with blanks completed for Caldwell County; we intend to put this on a Commissioners Court Agenda in May for adoption. Does it appear to be completed as needed? (If I should gear this review request toward Brad, please let me know...happy to redirect)

Thanks,

Lindsey

From: Tracy Bratton <TBratton@kleinfelder.com>
Sent: Tuesday, April 14, 2026 6:56 AM
To: Kate deGennaro <Kate.deGennaro@twdb.texas.gov>; Lindsey Oskoui <LOskoui@kleinfelder.com>
Cc: Kasi Miles <kasi.miles@co.caldwell.tx.us>; miles479@hotmail.com
Subject: Re: Caldwell County FIRM update adoption deadline - 06/10/2026

Hi Katie. Thank you for the clarification. Adoption of new maps was not on my radar. We do need to discuss process ASAP

Tracy A. Bratton, P.E.
Director of Land Development

TBPELS Firm No. F-3937
TBPELS Firm No. 10194551

From: Kate deGennaro <Kate.deGennaro@twdb.texas.gov>
Sent: Friday, April 10, 2026 1:20:56 PM
To: Tracy Bratton <TBratton@kleinfelder.com>; Lindsey Oskoui <LOskoui@kleinfelder.com>
Cc: Kasi Miles <kasi.miles@co.caldwell.tx.us>; miles479@hotmail.com <miles479@hotmail.com>
Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

External Email

Hi, Tracy.

I realized that we had 2 different email threads going on and I wanted to connect them.

In February, we were discussing the map update and needing to do an ordinance review for that. You had mentioned at that time that the County was looking into adding some higher standards.

In March, I had a call with Kasi Miles about the overall floodplain management program and you followed up by asking about adding ALL the higher standards to the floodplain ordinance. I replied in that thread that some could stay in just the development ordinance, to avoid variance issues.

FEMA is still shutdown and I don't know where we will be on the map update timeline when FEMA gets back online. The updated maps and ordinance were supposed to be adopted by June 10, 2026. Do you think that you will have a new draft ordinance prepared before June? Or should I review the existing 2012 ordinance, in preparation for that original June 10 deadline?

Respectfully,

Kate de Gennaro, CFM, MUP

Flood Outreach Specialist

Flood Science/Community Assistance Division

Texas Water Development Board

512.354.6075

Kate.deGennaro@twdb.texas.gov

www.twdb.texas.gov

From: Kate deGennaro

Sent: Tuesday, February 3, 2026 3:46 PM

To: 'Tracy Bratton' <TBratton@kleinfelder.com>; 'Brad Case' <bradford.case@fema.dhs.gov>

Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

Hi, Tracy.

I'm not sure how much Brad is impacted by the recent government shutdown, so I'm stepping in with a quick answer.

- Yes, Caldwell County would use the Model-60-3-**bcd**. It looks like the 2012 ordinance is a D level ordinance, so you would stay with that and the FLOODWAY language at the end is still required.
- If the County would like to add some higher standards, we definitely recommend that. If you know what standards you want to add, you can add the language, and TWDB or FEMA will review the draft ordinance before it goes to Commissioners Court to be formally adopted. We have to do an ordinance review for the map update anyway, so now is a great time to add higher standards.
- If you are not sure what standards you want to add, we can talk about that. I'd be happy to have a call with you and any county officials to discuss.

Respectfully,

Kate de Gennaro, CFM, MUP

Flood Outreach Specialist

Flood Science/Community Assistance Division
Texas Water Development Board
512.354.6075
Kate.deGennaro@twdb.texas.gov
www.twdb.texas.gov

From: Tracy Bratton <TBratton@kleinfelder.com>
Sent: Monday, February 2, 2026 7:08 PM
To: bradford.case@fema.dhs.gov
Cc: Richard Sitton <richard.sitton@co.caldwell.tx.us>; Kasi Miles <kasi.miles@co.caldwell.tx.us>;
tyler.thompson@fema.dhs.gov; Richie Hernandez <Richie.Hernandez@twdb.texas.gov>; Kate deGennaro
<Kate.deGennaro@twdb.texas.gov>; Hoppy Haden <hobby.haden@co.caldwell.tx.us>; Hector Rangel
(hector.rangel@co.caldwell.tx.us) <hector.rangel@co.caldwell.tx.us>; Joann Garza-Mayberry
<joann.mayberry@co.caldwell.tx.us>; Danie Teltow <danie.teltow@co.caldwell.tx.us>; Lindsey Oskoui
<LOskoui@kleinfelder.com>
Subject: RE: Caldwell County FIRM update adoption deadline - 06/10/2026

External: Beware of links/attachments.

Good evening Bradford...

By way of introduction, I (my firm) is the consulting engineer for Caldwell County. Judge Haden forwarded me your email and the model ordinances for consideration.

A couple of things I want to confirm:

- It appears that Model-60-3-bcd applicable document for Caldwell County (“cde” includes several specific coastal requirements; Caldwell County being quite a distance from the coast the “bcd” document seems to be the applicable template.)
- If the County desires to add additional, more stringent requirements, what is the process – do we need to seek FEMA concurrence before adding additional or tighter restrictions?

Tracy A. Bratton, P.E.
Director of Land Development

D: 512.583.2650
tbratton@kleinfelder.com
www.doucetengineers.com
www.kleinfelder.com
TBPELS Firm No. F-3937
TBPELS Firm No. 10194551

From: Kasi Miles <kasi.miles@co.caldwell.tx.us>
Sent: Monday, December 29, 2025 1:01 PM
To: Tracy Bratton <TBratton@kleinfelder.com>
Subject: FW: Caldwell County FIRM update adoption deadline - 06/10/2026
Importance: High

External Email

Can you call me on this, I have to meet with the Judge tomorrow at 10:00 and want your input.

Sincerely,

Kasi Miles
Director of Sanitation
Caldwell County Texas
512-398-1803

From: Ezzy Chan <ezzy.chan@co.caldwell.tx.us>
Sent: Monday, December 29, 2025 10:12 AM
To: Kasi Miles <kasi.miles@co.caldwell.tx.us>
Subject: FW: Caldwell County FIRM update adoption deadline - 06/10/2026
Importance: High

Judge wants to meet regarding this. Are you available tomorrow at 10am?

Ezzy Chan
Executive Assistant
Caldwell County Judge Office
110 S. Main St., Rm 102
512-398-1808 ext. 4651
Fax: 512-398-1828
ezzy.chan@co.caldwell.tx.us

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From: Hoppy Haden <hoppy.haden@co.caldwell.tx.us>
Sent: Monday, December 29, 2025 9:34 AM
To: Ezzy Chan <ezzy.chan@co.caldwell.tx.us>; Hector Rangel <hector.rangel@co.caldwell.tx.us>; Joann Garza-Mayberry <joann.mayberry@co.caldwell.tx.us>
Cc: Danie Teltow <danie.teltow@co.caldwell.tx.us>; Richard Sitton <richard.sitton@co.caldwell.tx.us>
Subject: FW: Caldwell County FIRM update adoption deadline - 06/10/2026
Importance: High

We need to schedule a meeting to go over these documents and make sure we have submitted everything we need to submit.

From: Case, Bradford <bradford.case@fema.dhs.gov>
Sent: Wednesday, December 17, 2025 3:00 PM
To: Hoppy Haden <hoppy.haden@co.caldwell.tx.us>; Kasi Miles <kasi.miles@co.caldwell.tx.us>
Cc: Rozelle, Trey <Trey.Rozelle@fema.dhs.gov>; Thompson, Tyler <tyler.thompson@fema.dhs.gov>; richie.hernandez@twdb.texas.gov; Kate deGennaro <kate.degennaro@twdb.texas.gov>
Subject: Caldwell County FIRM update adoption deadline - 06/10/2026
Importance: High

Good afternoon,

As you know, the Flood Insurance Rate Map (FIRM) for Caldwell County, TX. and Incorporated Areas (NFIP# 480094) are being updated. The new FIRM and Flood Insurance Study (FIS) will be effective June 10, 2026.

To avoid suspension from the National Flood Insurance Program (NFIP) on the map's effective date (June 10, 2026), FEMA Region 6 must have received a signed copy of your updated and adopted Flood Damage Prevention Ordinance or Order (FDPO), indicating adoption of the new FIS and FIRM prior to June 10, 2026. This ordinance must have an effective date no later than June 10, 2026.

Your FDPO needs to reference the correct dates for the FIS and applicable FIRM Panels or contain approved language automatically adopting the new FIS and FIRM Panels. While we do recognize approved auto-adopt FDPO language, we also must review your FDPO to verify compliance with the new effective FIRM features and compliance with applicable and current state statutes and federal regulations. You may update references to the FIS and FIRM even if you have the approved auto-adopt language in your FDPO. If you intend to utilize an auto-adopt reference of your current regulations to adopt the new FIS and FIRM, then you must indicate this intent to us in writing. Failure to do one of the things outlined in this paragraph will result in an automatic suspension from the National Flood Insurance Program on June 10, 2026.

Your community has FIRM features that require a "d" level FDPO for this map update, which is the same as your previous regulation level of "d." For your convenience, a "d" level Model Ordinance provided by the Texas Water Development Board is attached to this message. This model document can be used as a standard for comparison or to update of your community's FDPO. The following wording is recommended for the FIS and FIRM reference section (found in Article 3, Section B):

The areas of special flood hazard identified by the Federal Emergency Management Agency in the current scientific and engineering report entitled, "Flood Insurance Study (FIS) for Caldwell County TX and Incorporated Areas," dated Effective 6-10-2026, with accompanying Flood Insurance Rate Maps and/or Flood Boundary-Floodway Maps (FIRM and/or FBFM) dated 6-10-2026, and any revisions thereto are hereby adopted by reference and declared to be a part of this ordinance.

Please do not delay in submitting your draft FDPO early enough to allow review, reply, and adoption before 6-10-2026, to avoid having to revise and re-adopt due to unintentional document errors. Additionally, be advised using the model ordinance as a basis for your local ordinance will help ensure that the provisions are up to date and

5/5/26, 1:00 PM

Commissioners Agenda Items - Kasi Miles - Outlook

error free. The sooner the better. You will continue to receive a series of reminder letters from FEMA Headquarters staff until the June 10, 2026, adoption compliance deadline.

Please do not hesitate to contact me, Brad Case, FEMA Floodplain Management Compliance Specialist, at (202) 769-6745 or email bradford.case@fema.dhs.gov if you have any questions. Also, you can contact your Texas National Flood Insurance Program State Coordinator Richie Hernandez at (512) 475-1790 or via email richie.hernandez@twdb.texas.gov.

Thank you very much for all your work,

Bradford W Case

Floodplain Management & Insurance Specialist | Floodplain Management & Insurance | Mitigation – Region 6

Cellular Telephone: (202) 769-6745

bradford.case@fema.dhs.gov

Federal Emergency Management Agency

fema.gov