

YAVAPAI COUNTY FLOOD CONTROL DISTRICT ORDINANCE

2010-1

FLOOD DAMAGE PREVENTION ORDINANCE

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SECTION 1.0
STATUTORY AUTHORIZATION, FINDINGS OF FACT,
PURPOSE AND METHODS

1.1 STATUTORY AUTHORIZATION. The Legislature of the State of Arizona has in A.R.S. § 48-3601 through 48-3627 delegated the responsibility to each county flood control district unit to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the Flood Control District, (Board of Directors) of Yavapai County, Arizona, does ordain as follows:

1.2 FINDINGS OF FACT

- A. The flood hazard areas of Yavapai County are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.
- B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards which increase flood heights and velocities, and when inadequately anchored, causes damage in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

1.3 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:

- A. To protect human life and health;
- B. To minimize expenditure of public money for costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To insure that potential buyers are notified that property is in an area of special flood hazard;
- H. To insure that those who occupy the areas of special flood hazard assume responsibility for their actions and
- I. To maintain eligibility for State and Federal disaster relief.

1.4 METHODS OF REDUCING FLOOD LOSSES. In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and,
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

SECTION 2.0

DEFINITIONS

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

Accessory Structure means a structure that is solely for the parking of no more than 2 cars, or limited storage (small, low cost sheds); and are greater in size than 200 square feet.

Accessory Use means a use which is incidental and subordinate to the principal use of the parcel of land on which it is located.

Appeal means a request for a review of the Floodplain Administrator's interpretation of any provision of this ordinance or a request for a variance.

Area of Shallow Flooding means a designated AO Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and, velocity flow may be evident.

Area of Special Flood Hazard means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. This area is designated as Zone AE, A, AO, and AH on the FIRM and other areas determined by the criteria adopted by the Director of Water Resources.

Base Flood means the flood having a one percent chance of being equaled or exceeded in any given year.

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

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 supporting foundation system.

Building see **Structure**

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

Development means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, drainage facilities, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of materials and equipment located within the area of special flood hazard.

Encroachment means the advance or infringement of uses, plant growth, fill, excavation, buildings, permanent structures or development into a floodplain which may impede or alter the flow capacity of a floodplain.

Erosion means the process of the wearing away of land masses.

Flood or Flooding means a general and temporary condition of partial or complete inundation of normally dry land areas from (1) the overflow of flood waters, (2) the unusual and rapid accumulation or runoff of surface waters from any source, and/or (3) 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 this definition.

Flood Elevation means a determination by the Administrator of the water surface elevations of the base flood, that is, the flood level that has a one percent or greater chance of occurrence in any given year.

Flood Elevation Study 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 Insurance Rate Map (FIRM)" means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the FIRM, and the water surface elevation of the base flood.

Floodplain or Flood-prone Area means the areas adjoining the channel of a watercourse including areas where drainage is or may be restricted by man-made structures which have been or may be covered partially or wholly by floodwater from the one hundred-year flood.

Floodplain Administrator means the designated Director of the Flood Control District who is hereby authorized by the Floodplain Board to administer and implement the provisions of this ordinance.

Floodplain Board means the Board of Directors of the Flood Control District of Yavapai County at such times as they are engaged in the enforcement of this ordinance.

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.

Floodproofed 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 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.

Floodway means the channel of a river or other watercourse and the adjacent land areas necessary in order to discharge the one hundred-year flood without cumulatively increasing the water surface elevation.

Floodway Fringe is that area of the floodplain on either side of the “Regulatory Floodway” where encroachment may be permitted.

Hardship Related to Section 6.0 “Variances”, of this ordinance means the exceptional hardship which would result from a failure to grant the requested variance. The governing body requires that the variance be exceptional, unusual and peculiar to the property involved. Mere economic or financial hardship alone is not exceptional. Inconvenience, aesthetic considerations, physical handicaps, personal preferences or the disapproval of one’s neighbors likewise cannot, as a rule, qualify as an exceptional hardship. All of these problems can be resolved through other means without granting a variance, even if the alternative is more expensive, or requires the property owner to build elsewhere or put the parcel to a different use than originally intended.

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:

- A. 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.
- B. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district.
- C. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of the Interior; or
- D. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either;
 1. By an approved state program as determined by the Secretary of the Interior or
 2. 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.

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.

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 attached 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 sale or rent.

Market Value shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation which has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the floodplain administrator, but shall not include economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

One Hundred Year Flood means the flood having a one percent chance of being equaled or exceeded in any given year (see "base flood").

Mean Sea Level means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or North American Vertical Datum (NAVD) of 1988, to which base flood elevations shown on a community's Flood Insurance Rate Map (FIRM) are referenced.

New Construction means, for floodplain management purposes, structures and any subsequent improvement to such structures for which the "start of construction" commenced on or after August 19, 1985.

Obstruction includes, but is not limited to, any dam, wall, wharf, embankment, levee, dike, pile, abutment, protection, excavation, channelization, bridge, conduit, culvert, building, wire, fence, rock, gravel, refuse, fill, structure, vegetation, or other material in, along, across, or projecting into any watercourse which may alter, impede, retard or change the direction and/or velocity of the flow of water, or due to its location, its propensity to snare or collect debris carried by the flow of water, or its likelihood of being carried downstream.

Person means an individual or his agent, firm, partnership, association or corporation, or agent of the aforementioned groups, or this state or its agencies or political subdivisions.

Principally Above Ground means that at least 51 percent of the actual cash value of the structure, less land value, is above ground.

Recreational Vehicle means a vehicle which is:

- A. Built on a single chassis;
- B. **320** square feet or less when measured at the largest horizontal projection;

- C. Designed to be self-propelled or permanently tow able by a light duty truck; be fully licensed and road ready for highway use; and
- D. Designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel or seasonal use on the site for fewer than 180 consecutive days

Regulatory Flood Elevation means an elevation one foot above the base flood elevation for a watercourse for which the base flood elevation has been determined and shall be determined by criteria developed by the Director of Water Resources for all other watercourses.

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.

Special Flood Hazard Area

An area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. See also “District-designated Special Flood Hazard Area” or “FEMA-Designated Special Flood Hazard Area.”

Start of Construction

Includes substantial improvement or repair of substantial damage, and means the date the construction permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days from the date of the permit. 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; excavation; the erection of temporary forms; installation of streets or walkways; accessory buildings, such as garages or sheds not occupied as dwelling units and not a part of the main structure. For a substantial improvement or substantial damage repair, the actual start of construction means the first alteration or repair of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure

Anything affixed to the ground or attached to something located on the ground, including but not limited to fences, walls, berms, levees, fill, gas or liquid storage tanks, buildings and mobile/manufactured homes as defined by this ordinance, or other features that have the potential to obstruct, divert or retard flood flows.

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

the "start of construction" of the improvement. The value of all improvements made after August 19, 1985, shall be considered. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

- A. 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
- B. Any alteration of a historic structure provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Variance means a grant of relief from the requirements of this ordinance which permits construction in a manner that would otherwise be prohibited by this ordinance.

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 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 National Geodetic Vertical Datum (NGVD) of 1929, or North American Vertical Datum (NAVD) of 1988 of floods of various magnitudes and frequencies in the floodplains of riverine areas.

Watercourse means a lake, river, creek, stream, wash, arroyo, channel or other topographic feature on or over which waters flow at least periodically. Watercourse includes specifically designated areas in which substantial flood damage may occur.

SECTION 3.0

GENERAL PROVISIONS

3.1 LANDS TO WHICH THIS ORDINANCE APPLIES. This ordinance shall apply to all areas of special flood hazards within the boundaries of Yavapai County except those incorporated cities and town which have adopted a resolution in accordance with A.R.S. 48-3610.

3.2 BASIS FOR ESTABLISHING THE AREAS OF SPECIAL FLOOD HAZARD. The areas of special flood hazard identified by the Federal Insurance Administration of the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled "Flood Insurance Study for Yavapai County", dated, June 6, 2001, with accompanying Flood Insurance Rate Maps and all new and subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this ordinance. These Flood Insurance Studies are on file at the Yavapai County Flood Control District. The Flood Insurance Study and attendant mapping is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the Floodplain Board by the Floodplain Administrator.

The Board, within its area of jurisdiction shall delineate (or may by rule require developers of land to delineate) for areas where development is ongoing or imminent, and thereafter as development becomes imminent, floodplains consistent with the criteria developed by the Federal Emergency Management Agency and the Director Water Resources. The FIS and FIRM panels are on file at Yavapai County Development Services Department, Flood Control District.

3.3 COMPLIANCE. All development of land, construction of residential, commercial or industrial structures or future development within delineated floodplain areas is subject to the terms of this ordinance and other applicable regulations.

3.4 ABROGATION AND GREATER RESTRICTIONS. This ordinance is not intended to repeal, abrogate, or impair any existing 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.

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

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under state statutes.

3.6 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. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards 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 Yavapai County Flood Control District, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on the ordinance or any administrative decision lawfully made thereunder.

3.7 STATUTORY EXEMPTIONS

- A. In accordance with A.R.S. 48-3609.H, unless expressly provided, this and any regulation adopted pursuant to this article do not affect:
1. Legal uses of property existing prior to August 19, 1985, or the right to continuation of such legal use. However, if a nonconforming use of land or a building or structure is discontinued for twelve months or destroyed to the extent of fifty per cent of its value, as determined by a competent appraiser, any further use shall comply with this article and regulations of the Flood Control District.
 2. Reasonable repair or alteration of property for the purposes for which the property was legally used on August 19, 1985, or any regulations affecting such property takes effect, except that any alteration, addition or repair to a nonconforming building or structure which would result in increasing its flood damage potential by fifty per cent or more shall be either floodproofed or elevated to or above the regulatory flood elevation.
 3. Reasonable repair of structures constructed with the written authorization required by ARS 48-3613.
 4. Facilities constructed or installed pursuant to a certificate of environmental compatibility issued pursuant to title 40, chapter 2, article 6.2.
- B. In accordance with A.R.S. § 48-3613, written authorization shall not be required, nor shall the Floodplain Board prohibit:
1. The construction of bridges, culverts, dikes and other structures necessary to the construction of public highways, roads and streets intersecting or crossing a watercourse.
 2. The construction of storage dams for watering livestock or wildlife, structures on banks of a watercourse to prevent erosion of or damage to adjoining land if the structure will not divert, retard or obstruct the natural channel of the watercourse or dams for the conservation of floodwaters as permitted by A.R.S. title 45, chapter 6.
 3. Construction of tailing dams and waste disposal areas for use in connection with mining and metallurgical operations. This paragraph does not exempt those sand and gravel operations which will divert, retard or obstruct the flow of waters in any watercourse from complying with and acquiring authorization from the Board pursuant to regulations adopted by the Board under this article.
 4. Other construction if it is determined by the Board that written authorization is unnecessary.
 5. Any flood control district, county, city, town, or other political subdivision from exercising powers granted to it under this article.
 6. The construction of streams, waterways, lakes and other auxiliary facilities in conjunction with development of public parks and recreation facilities by a public agency or political subdivision.
 7. The construction and erection of poles, towers, foundations, support structures, guy wires, and other facilities related to power transmission as constructed by any utility whether a public service corporation or a political subdivision.

- C. Before any construction authorized by Subsection B of this Section may begin, the responsible person must submit plans for the construction to the Board for review and comment.
- D. In addition to other penalties or remedies otherwise provided by law, this state, a political subdivision or a person who may be damaged or has been damaged as a result of the unauthorized diversion, retardation or obstruction of a watercourse has the right to commence, maintain and prosecute any appropriate action or pursue any remedy to enjoin, abate or otherwise prevent any person from violating or continuing to violate this section or regulations adopted pursuant to this article. If a person is found to be in violation of this section, the court shall require the violator to either comply with this section if authorized by the board or remove the obstruction and restore the watercourse to its original state. The court may also award such monetary damages as are appropriate to the injured parties resulting from the violation including reasonable costs and attorney fees.

3.8 DECLARATION OF PUBLIC NUISANCE. Every new structure, building, fill, excavation or development located or maintained within any area of special flood hazard in violation of this ordinance is a public nuisance per se and may be abated, prevented or restrained by action of this political subdivision.

3.9 ABATEMENT OF VIOLATIONS. Within 30 days of discovery of a violation of this Ordinance, the Floodplain Administrator shall;

- A. Take any necessary action to effect the abatement of such violation; or
- B. Issue a variance to this ordinance in accordance with the provisions of Section 6.0 herein; or
- C. Order the owner of the property upon which the violation exists to provide whatever additional information may be required for their determination. Such information must be provided to the Floodplain Administrator within 30 days of such order. At the next regularly scheduled public meeting, the Floodplain Board shall either order the abatement of said violation or they shall grant a variance in accordance with the provisions of Section herein; or
- D. Submit to the Federal Emergency Management Agency a declaration for denial of insurance, stating that the property is in violation of a cited state or local law, regulation or ordinance, pursuant to Section 1316 of the National Flood Insurance Act of 1968 as amended.

3.10 UNLAWFUL ACTS.

- A. It is unlawful for any person to engage in any development or to divert, retard or obstruct the flow of waters in any watercourse if it creates a hazard to life or property without securing the written authorization required by A.R.S. § 48-3613. Where the watercourse is a delineated floodplain, it is unlawful to engage in any development affecting the flow of waters without securing written authorization required by A.R.S. § 48-3613.
- B. Any person found guilty of violating any provisions of this Ordinance shall be guilty of a

misdemeanor. Each day that a violation continues shall be a separate offense punishable as hereinabove described.

3.11 SEVERABILITY. This ordinance and the various parts thereof are hereby declared to be severable. Should any section of this ordinance be declared by the courts to be unconstitutional or invalid, such decision shall not affect the validity of the ordinance as a whole, or any portion thereof other than the section so declared to be unconstitutional or invalid.

SECTION 4.0

ADMINISTRATION

4.1 ESTABLISHMENT OF DEVELOPMENT PERMIT. A Development Permit shall be obtained before construction or development, including placement of manufactured homes, begins within any area of special flood hazard. Each application for a Development Permit or extension of a Development Permit shall be made on forms furnished by the Floodplain Administrator. The Floodplain Administrator may require at a minimum, the applicant to submit:

- A. Engineered plans, in duplicate, drawn to scale, showing the nature and location of the area, regulatory flood elevations, dimensions and contours or key elevations, watercourses, and the locations of existing and proposed structures, fill, storage of materials, and drainage facilities. All elevations or vertical distances must reference an established datum or base elevation.
- B. Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development and cumulative development.
- C. When structures are involved:
 - 1. Structures shall be designed and constructed so as to offer the minimum obstruction to the flow of flood waters. Foundation systems to be designed and certified by a registered professional engineer.
 - 2. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; plus elevation of existing grade, in relation to mean sea level, all elevations to be certified by a registered civil engineer or a registered land surveyor, registered in the State of Arizona. In Zone AO, elevation of existing highest adjacent natural grade and proposed elevation of lowest floor of all structures.
 - 3. Proposed elevation in relation to mean sea level to which each structure will be floodproofed.
 - 4. Certification by a registered professional engineer or architect that the floodproofing methods for each structure meet the floodproofing criteria in Section 5.1.C.3; and,
- D. More extensive submissions if the proposed development is in a designated floodway or in an area which will act as a floodway during a major flood. Developers in these areas, including gravel and sand excavators, shall submit a plan, a time schedule, and a report, all signed by a registered civil engineer. The plan, in duplicate, shall be to a scale of one inch equals 100 feet or greater and shall contain contours with a contour interval of two feet or less. In the case of gravel and sand excavation, the plan shall indicate the locations and depths of excavations, and the locations of trees and banks and how they will be protected or disposed of, and the time schedule shall indicate approximate volumes to be removed on a quarterly basis up to the end of the operation. The report shall deal with the hydrology, hydraulics and sediment aspects of the development, shall demonstrate that no increase in flood levels during the occurrence of the base flood discharge would occur, shall address

concerns over loss of life and property damage, shall treat bank erosion and channel aggradation and degradation, and shall contain water surface profile studies and quantitative or semi-quantitative sediment analyses if required to support the conclusions in the report. A registered civil engineer may make a written request to waive certain of the items, accompanied by explanations. It is stressed that encroachments in floodways are prohibited, as per Subsection 5.7, and that only in rare cases would exceptions be made.

4.2 DUTIES AND RESPONSIBILITIES OF THE FLOODPLAIN ADMINISTRATOR.

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

- A. Review all Development Permits to determine that:
 - 1. The permit requirements of this ordinance have been satisfied;
 - 2. The site is reasonably safe from flooding.
 - 3. The proposed development does not adversely affect the water and sediment carrying capacity of the floodway. For purposes of this ordinance, "adversely affects" means that the cumulative effect of the proposed development, and all other existing and anticipated developments shall not increase the water surface elevation of the base flood more than one foot at any point, and shall not risk aggravating bed and bank scour which could directly or indirectly endanger human life or cause property damage.
 - 4. All other required State and Federal permits have been obtained.

- B. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 3.2., the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation data available from a Federal, State or other source, in order to administer Section 5.0. Any such information shall be consistent with the requirements of the Federal Emergency Management Agency and the Director of Water Resources.

- C. Obtain and maintain for public inspection and make available as needed for Flood Insurance Policies:
 - 1. The certified regulatory flood elevation required in Section 5.1.C.1;
 - 2. The certification required in Section 5.1.C.2;
 - 3. The floodproofing certification required in Section 5.1.C.3; and
 - 4. The certified elevation required in Section 5.6 (Manufactured Homes).
 - 5. Permit records for repair of flood-related damage to structures on a cumulative basis over the life of the structure.
 - 6. The elevation certification required for additional development standards, including subdivisions, in Section 5.4.A.2.
 - 7. The floodway encroachment certification required in Section 5.7.A.
 - 8. Maintain a record of all variance actions, including justification for their issuance, and report such variances issued in its biennial report submitted to the Federal Emergency Management Agency.
 - 9. Obtain and maintain improvement calculations.

- D. Whenever a watercourse is to be altered or relocated:
1. Notify adjacent communities and the Arizona Department of Water Resources prior to such alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration through appropriate notification means;
 2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.
- E. Advise in writing and provide a copy of any development plan, to any city or town having assumed jurisdiction over its floodplains in accordance with A.R.S. 48-3610, of any application for a floodplain use permit (Development Permit) or variance to develop land in a floodplain or floodway within one mile of the corporate limits of such city or town. The District shall also advise such city or town in writing and provide a copy of any development plan of any major development proposed within a floodplain or floodway which could affect floodplains, floodways, or watercourses within such city's or town's area of jurisdiction. Written notice and a copy of the plan of development shall be sent to such city or town no later than three working days after having been received by the District.
- F. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 6.0.
- G. Take actions on violations of this ordinance as required in Section 3.9 herein.
- H. Establish a reasonable fee schedule, including higher fees for late compliance, all fee structures to be approved by the District Board.
- I. Notify FEMA and ADWR of acquisition by means of annexation, incorporation or otherwise, of additional areas of jurisdiction.
- J. Base flood elevations may increase or decrease resulting from physical changes affecting flooding conditions. As soon as practicable, but not later than six months after the date such information becomes available, the Floodplain Administrator shall notify FEMA of the changes by submitting technical or scientific data in accordance with Volume 44 Code of Federal Regulations section 65.3. Such a submission is necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements will be based upon current data.

SECTION 5.0 PROVISIONS FOR FLOOD HAZARD REDUCTION

5.1 STANDARDS OF CONSTRUCTION. In all areas of special flood hazards the following standards are required:

A. Anchoring

1. All new construction and substantial improvements shall be anchored to prevent floatation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. A foundation design and certification by a registered professional engineer may be required to ensure the standards of this subsection.
2. All manufactured homes shall meet the anchoring standards of Section 5.6.B.

B. Construction Materials and Methods

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
3. All new construction, substantial improvement and other proposed new development shall be constructed with electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities that are designed and/or located above the regulatory flood elevation, so as to prevent water from entering or accumulating within the components during conditions of flooding.
4. Require within Zones AH or AO that adequate drainage paths around structures on slopes guide flood waters around and away from proposed or existing structures.

C. Elevation and Floodproofing

1. All new residential construction, and substantial improvement shall have the lowest floor, including basement,
 - a. In an AO Zone, elevated to or above the regulatory flood elevation, or elevated at least two feet above the highest adjacent grade if no depth number is specified.
 - b. In an A Zone where a Base Flood Elevation has not been determined, elevated to or above the regulatory flood elevation or be elevated in accordance with the criteria developed by the Director of Water Resources.
 - c. In Zones AE and AH, elevated to or above the regulatory flood elevation.

Upon completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered professional engineer or surveyor, and verified by the community's inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

2. All new nonresidential construction and substantial improvement shall either be elevated in conformance with Section 5.1.C.1. or together with attendant utility and sanitary facilities:

- a. be floodproofed so that below the regulatory flood level the structure is watertight with walls substantially impermeable to the passage of water;
 - b. have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
 - c. be designed and certified by a registered professional engineer or architect that the standards of this subsection and subsection 3.a are satisfied. Such certifications shall be provided to the Floodplain Administrator.
3. All new construction and substantial improvements with fully enclosed areas below the lowest floor (excluding basements) that are useable solely for parking of vehicles, building access, storage, including crawl spaces, and which are subject to flooding shall have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and 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 be certified by a registered professional engineer or architect to meet or exceed the following minimum criteria:
- a. Have a minimum of two openings, on different sides of each enclosed area, having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding.
 - b. The bottom of all openings shall be no higher than one 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 floodwaters.
 - d. If it is not feasible or desirable to meet the opening criteria stated above, a registered engineer or architect may design and certify the openings.
4. Manufactured homes shall meet the above standards and also the standards in Section 5.6.
5. Fill, if used to elevate structures, must meet all of the following standards:
- a. The top of such fill shall be at no point lower than the Regulatory Flood Elevation.
 - b. Such fill shall extend at least 15 feet beyond the walls or supporting frame of the structure.
 - c. Fill must be placed and compacted in accordance with Adopted Building Codes.
 - d. Fill shall not interfere with local drainage or tributary flow to the channel of any watercourse.
 - e. Fill proposed in excess of the volume and extent required herein must be shown to have no detrimental effect and the amount of fill cannot be greater than is necessary to achieve the purpose for which it is intended as demonstrated by a plan submitted by the applicant indicating the uses to which the filled land will be put and the final dimensions and extent of the proposed fill. Fill shall not include junk, trash, wood or other buoyant or hazardous material and shall be protected as needed against scour and erosion by riprap or other protective measures as approved by the Floodplain Administrator.

5.2 STANDARDS FOR STORAGE OF MATERIALS AND EQUIPMENT

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

5.3 STANDARDS FOR UTILITIES

- A. All new or replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the system and discharge from systems into flood waters.
- B. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- C. Waste disposal systems shall not be installed in a regulatory floodway.

5.4 STANDARDS FOR GARAGES AND LOW COST ACCESSORY STRUCTURES

A. Attached Garages

- 1. A garage attached to a residential structure, constructed with the garage floor slab below the regulatory flood elevation, must be designed to allow for the automatic entry of floodwaters. See Section 5.1.C.3. Areas of the garage below the regulatory flood elevation must be constructed with flood resistant materials. See Section 5.1.B.

B. Detached garages and accessory structures

- 1. "Accessory structures" used solely for parking (2 car detached garages or smaller) or limited storage (small, low cost sheds), as defined in Section 2, may be constructed such that its floor is below the regulatory flood elevation, provided the structure is designed and constructed in accordance with the following requirements:
 - a. Use of the accessory structure must be limited to parking or storage;
 - b. The portions of the accessory structure located below the base flood elevation must be built using flood-resistant materials;
 - c. The accessory structure must be adequately anchored to prevent floatation, collapse and lateral movements;
 - d. Any mechanical and utility equipment in the accessory structure must be elevated or floodproofed to or above the regulatory flood elevation;
 - e. The accessory structure must comply with floodway encroachment provisions in Section 5.7; and
 - f. The accessory structure must be designed to allow for the automatic entry of flood waters in accordance with Section 5.1.C.3.

5.5 STANDARDS FOR SUBDIVISIONS AND OTHER PROPOSED DEVELOPMENTS

- A. All new subdivision proposals and other proposed development (including proposals for manufactured home parks and subdivisions) shall identify the flood hazard area and the elevation of the base flood.
- B. If flood hazard areas exist, all final subdivision plans and plats will provide the elevation(s) of proposed structure(s) and pads. If the site is filled above the base flood, the final lowest floor and pad elevation shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.
- C. All subdivision proposals shall be consistent with the need to minimize flood damage.
- D. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.
- E. All subdivisions shall provide adequate drainage to reduce exposure to flood hazards, including easements dimensioned to facilitate construction and maintenance of drainage facilities, and shall not concentrate or increase flows without providing remedial works.
- F. All subdivision plan submittals shall include the information, and shall be in the form required by the Floodplain Administrator as detailed in the most recent update of the County's Drainage Criteria Manual.

5.6 STANDARDS FOR MANUFACTURED HOMES. All new and replacement manufactured homes, additions to manufactured homes and recreational vehicles which are left on site for more than 180 days or are not licensed and ready for highway use shall:

- A. Be elevated so that the bottom of the structural frame or the lowest point of any attached appliances, whichever is lower, is at or above the regulatory flood elevation; and
- B. Be securely anchored to an adequately anchored foundation system designed by a registered professional engineer, to resist floatation, collapse or lateral movement. Methods of anchoring may include, but are not to be 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.

5.7 STANDARDS FOR RECREATIONAL VEHICLES All recreational vehicles placed on site shall:

- A. Be on site for fewer than 180 consecutive days, or
- B. Be fully licensed and ready for highway use. A recreational vehicle is ready for highway use if it is on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
- C. Meet the permit requirements of Section 4.0 of this ordinance and the elevation and anchoring requirements for manufactured homes in Section 5.5

5.8 FLOODWAYS. Located within areas of special flood hazard established in Section 3.2 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 apply:

- A. Encroachments in floodways are prohibited, including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in flood levels and that the structural integrity of the development is not susceptible to the base floods velocities, bed scour and other physical mechanisms during the occurrence of the base flood discharge. The certified demonstration must meet the procedures as set forth in subsection 4.1, and if approved a Development Permit may be obtained.
- B. No activity is permitted within a floodway which might cause lateral migration of waters at high or low stages or channel bed degradation or aggradation without a Development Permit.
- C. If Sections 5.8 is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of Section 5.

5.8 EROSION HAZARD AND SETBACKS.

- A. The minimum setback from the edge of a floodway, or from the edge of a bank of a regulatory watercourse shall be 20 feet. Along reaches of streams or watercourses where hazards from eroding banks and/or channel meandering are considered by the District Administrator to be severe, the setbacks must meet the requirements as outlined in the County's Drainage Criteria Manual or as determined by an Arizona Registered Civil Engineer either by a more detailed erosion hazard study or by structural improvements to prevent lateral migration of the wash bank, as approved by the District Administrator

SECTION 6.0

VARIANCE PROCEDURE

6.1 NATURE OF VARIANCES The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants or the property owners.

It is the duty of the Yavapai County Flood Control District to help protect its citizens from flooding. This need is so compelling and the implications of the cost of insuring a structure built below the regulatory flood elevation are so serious that variances from the flood elevation or from other requirements in the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

6.2 APPEAL BOARD

- A. The Floodplain Board of Yavapai County, Arizona, shall hear and decide appeals and requests for variances from the requirements of this ordinance.
- B. The Floodplain Board shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance.
- C. In passing upon such applications, the Floodplain Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, 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 for the proposed use which are not subject to flooding or erosion damage;
 - 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 time of flood for ordinary and emergency vehicles;
 - 10. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters expected at the site; and,

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 system, and streets and bridges.
- D. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, provided the procedures of Sections 4.0 and 5.0 of this Ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
 - E. Upon consideration of the factors of Section 6.1.C.1 through 11, and the purposes of this ordinance, the Floodplain Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
 - F. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Emergency Management Agency upon request.

6.3 CONDITIONS FOR VARIANCES

- A. Variances may be issued for the repair, rehabilitation or restoration of structures listed in the National Register of Historic Places or the State Inventory of Historic Places, 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.
- B. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result in a high risk of loss of life or property damage.
- C. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
- D. Variances shall only be issued upon:
 1. a showing of good and sufficient cause;
 2. a determination that failure to grant the variance would result in exceptional hardship to the applicant; and
 3. 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 on or victimization of, the public, or conflict with existing local laws or ordinances.
- E. Any applicant to whom a variance is granted shall be given written notice over the signature of a community official that:
 1. the issuance of a variance to construct a structure below the base flood level will result in increased premium rates for flood insurance up to amounts as high as \$25 for \$100 of insurance coverage, and
 2. such construction below the base flood level increases risks to life and property.

Such notification shall be maintained with a record of all variance actions as required in Paragraph 6.1.E. of this ordinance. Such notice will also state that the land upon which the variance is granted shall be ineligible for exchange of land pursuant to any flood relocation and

land exchange program. A copy of the notice shall be recorded by the Floodplain Board in the office of the Yavapai County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

6.4 MINOR VARIANCES The Floodplain Board may identify uses which are not allowed by this Ordinance but which are minor in nature. The Floodplain Board may adopt written policies detailing specific conditions in addition to the conditions listed in Section 6.3 under which minor variances may be granted. The Floodplain Administrator may grant minor variances if all necessary conditions have been satisfied. The denial of a minor variance may be appealed to the Floodplain Board.

SECTION 7.0

AMENDMENTS

7.1 MAP AMENDMENTS

- A. The District Board may direct the District Administrator to study areas of special flood hazard which may be in error either because of changed conditions or engineering error. Any person may submit engineering reports consistent with criteria developed by the Director of the Arizona Department of Water Resources to demonstrate error. The District Board may submit any proposed changes to the Arizona Department of Water Resources and the Federal Insurance Administration, including supporting engineering.

- B. Where areas of special flood hazard have not been delineated and development is ongoing or imminent, the District Board shall direct the District Administrator or developers of land to prepare and submit reports to the District Board. If it appears that the reports are consistent with the criteria developed by the Director of the Arizona Department of Water Resources, they shall be adopted and submitted to the Arizona Department of Water Resources and the Federal Insurance Administration.

7.2 ORDINANCE AMENDMENT

Amendments to this Ordinance may be adopted after a public hearing at which any person has an opportunity to be heard. At least thirty (30) days before the hearing, a notice of the time and place of hearing shall be published in a newspaper of general circulation within the county. A notice of the hearing and the proposed ordinance changes shall be submitted to the Director of the Department of Water Resources at least thirty (30) days prior to the hearing. A copy of any adopted ordinance change shall be filed with the Director of the Arizona Department of Water Resources and with each political subdivision and municipal corporation within the District within five (5) days from adoption.

Dated this November 1, 2010

BOARD OF DIRECTORS

ATTEST:



A. G. "Chip" Davis, Chairman, Floodplain Board
YAVAPAI COUNTY FLOOD CONTROL DISTRICT



Julie Ayers, Clerk, Board of Directors