

CHAPTER 8 FLOOD DAMAGE PREVENTION

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ARTICLE 8-1 AUTHORIZATION

Article 1 Section 1.02 (b) of the Holbrook City Charter gives the city council of Holbrook, Arizona the power to enact a Flood Damage Prevention Ordinance. The legislature of the State of Arizona has in A.R.S. § 48-3610 enabled the City of Holbrook to adopt regulations in conformance with A.R.S. § 48-3603, designed to promote the public health, safety and general welfare of its citizenry.

ARTICLE 8-2 FINDINGS OF FACT

- A. The flood hazard areas of Holbrook 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, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

ARTICLE 8-3 STATEMENT OF PURPOSE

It is the purpose of this Chapter 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 second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard;
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions; and
- I. To maintain eligibility for State disaster relief.

ARTICLE 8-4 METHODS OF REDUCING FLOOD LOSSES

In order to accomplish its purposes, this Chapter 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 flood plains, 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.

ARTICLE 8-5 DEFINITIONS

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

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

“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.

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

“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.

“Area of shallow flooding” means a designated AO, AH, or VO zone on a community's Flood Insurance Rate Map (FIRM) with a one percent or greater annual chance of flooding to an average depth of one to three 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” means the land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. These areas are designated as Zone A, AO, AH and A1-30 on the FIRM and other areas determined by the criteria adopted by the director of water resources.

“Backfill” means the placement of fill material within a specified depression, hole or excavation pit below the surrounding adjacent ground level as a means of improving flood water conveyance or to restore the land to the natural contours existing prior to excavation.

“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.

“Chief Executive Officer” of the community (“CEO”) means the official of the community who is charged with the authority to implement and administer laws, Chapters and regulations for that

community.

“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.

“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.

“Development” means any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of materials and equipment located within areas 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 gradual wearing away of land masses. This peril is not per se covered under the program. (See Flood-Related Erosion.)

“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 slabs) is completed before the effective date of the floodplain management regulations adopted by the community.

“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 home are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

“Financial assistance” means any form of loan, grant, guaranty, insurance, payment, rebate, subsidy, disaster assistance loan or grant, or any other form of direct or indirect Federal assistance, other than general or special revenue sharing or formula grants made to states.

“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 and

defined in this definition.

“Flood Boundary and Floodway Map (FBFM)” means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated by the areas of special flood hazards and the floodway.

“Flood Hazard Boundary Map (FHBM)” means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated the areas of flood 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, the Flood Boundary Floodway Map, and the water surface elevation of the base flood.

“Floodplain or flood-prone area” means any land area susceptible to being inundated by water from any source - see “flooding”.

“Floodplain Administrator” means the city manager or his designee.

“Floodplain Board” means the city council of Holbrook at such times as they are engaged in the enforcement of this Chapter.

“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 regulations” means this Code, other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other applications of police power which control development in flood-prone areas. This term describes federal, state, or local regulations in any combination thereof which provide standards for preventing and reducing flood loss and damage.

“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 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 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” 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.

“Freeboard” means a factor of safety usually expressed in feet above a flood level for purposes of flood plain 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.

“Governing body” is the local governing unit, i.e. county or municipality that is empowered to adopt and implement regulations to provide for the public health, safety and general welfare of its citizenry.

“Hardship” as related to Article 8-9, Variances, of this Chapter means the exceptional hardship that 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 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.

“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 of this Chapter.

“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 “manufacture 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 the 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.

“Mean sea level” means, for purposes of the National Flood Insurance Program, the National Geodetic Vertical Datum (NGVD) of 1929 or other datum, to which base flood elevations shown on a community’s Flood Insurance Rate Map are referenced.

“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 purposes of determining insurance rates, structures for which the “start of construction” commenced on or after the effective date of an initial FIRM or after December 31, 1974, whichever is later, and includes any subsequent improvements to such structures. For floodplain management purposes, “new construction” means structures

for which the “start of construction” commenced on or after the effective date of a floodplain management regulation adopted by a community and includes any subsequent improvements to such structures.

“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 the community.

“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.

“One Hundred Year Flood” means the flood having a one percent chance of being equaled or exceeded in any given year (see “base flood”²).

“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.

“Program” means the National Flood Insurance Program authorized by 42 U.S.C. 4001-4128.

“Program deficiency” means a defect in community’s floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations or of the NFIP standards.

“Recreational vehicle” means a vehicle which is:

- a. built on a single chassis;
- b. 400 square feet or less when measured at the largest horizontal projection;
- c. designed to be self-propelled or permanently towable by a light duty truck; and
- d. designed primarily not for use as a permanent dwelling but as a temporary living quarters for recreational, camping, travel or seasonal use.

“Regulatory flood evaluation” 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 as determined by the 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 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 Chapter or otherwise deterring future similar violations, or reducing Federal financial exposure with regard to the structure or other development.

“Repetitive Loss Structure” means a structure, covered by a contract for flood insurance issued pursuant to the National Flood Insurance Act, that has incurred flood-related damage on two occasions during any 10-year period ending on the date of the event for which a second claim is made, in which the cost of repairing the flood damage, on average, equaled or exceeded 25% of the market value of the structure at the time of each such flood event.

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

“Sheet flow area” - see “Area of shallow flooding”.

“Special flood hazard area” means an area having special flood or flood-related erosion hazards, and shown on an FHBM or FIRM as Zone A, AO, A1-30, AE, A99 or AH.

“Start of Construction” 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 a basement, footings, piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

“Structure” means a walled and roofed building, including a gas or liquid storage tank, that is principally above ground, as well as a manufactured home.

“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 fifty percent (50%) of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage", regardless of the actual repair work performed. The term does not, however, include either:

1. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement official and which are the minimum necessary to assure safe living conditions; or
2. Any alteration of a "historic structure"; provided, that the alteration will not preclude the structure's continued designation as a "historic structure".

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

“Violation” means the failure of a structure or other development to be fully compliant with the community's flood plain management regulations. A structure or other development without the elevation certificate, other certifications or other evidence of compliance required in this Chapter 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 other datum, where specified) 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.

“Watercourse master plan” means a hydraulic plan for a watercourse that examines the cumulative impacts of existing development and future encroachment in the floodplain and future development in the watershed on potential flood damages, and establishes technical criteria for subsequent development so as to minimize potential flood damages for all flood events up to and including the one hundred-year flood.

ARTICLE 8-6 GENERAL PROVISIONS

- 8-6-1 Lands to Which this Chapter Applies
- 8-6-2 Basis for Establishing Areas of Special Flood Hazard
- 8-6-3 Compliance
- 8-6-4 Abrogation and Great Restrictions
- 8-6-5 Interpretation
- 8-6-6 Warning and Disclaimer of Liability
- 8-6-7 Statutory Exemptions
- 8-6-8 Declaration of Public Nuisance
- 8-6-9 Abatement of Violations
- 8-6-10 Unlawful Acts
- 8-6-11 Severability

8-6-1 Lands To Which this Chapter Applies

This Chapter shall apply to all areas of special flood hazards within the corporate limits of Holbrook.

8-6-2 Basis for Establishing Areas of Special Flood Hazard

The area of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in a scientific and engineering report entitled “The Flood Insurance Study for {community and date of original study}” with accompanying Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFM), dated {date} and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this Article. The Flood Insurance Study is the minimum area of applicability of this Article and may be supplemented by studies for other areas which allow implementation of his Article 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 of Water Resources. The Flood Insurance Study, FIRMs and FBFM are on file at 465 First Avenue, City Hall, Department of Planning, Holbrook, Arizona.

8-6-3 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 Chapter and other applicable regulations.

8-6-4 Abrogation and Greater Restrictions

This Chapter is not intended to repeal, abrogate or impair any existing easements, covenants or

deed restrictions. However, where this Chapter and another ordinance, easement, covenant or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

8-6-5 Interpretation

In the interpretation and application of this Chapter, 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.

8-6-6 Warning and Disclaimer of Liability

The degree of flood protection required by this Chapter 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 Chapter 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 Chapter shall not create liability on the part of the City of Holbrook, any officer or employee thereof, the State of Arizona, the Federal insurance Administration or the Federal Emergency Management Agency, for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder.

8-6-7 Statutory Exemptions

- A. In accordance with Arizona Revised Statutes, Section 48-3609.H, unless expressly provided, this and any regulation adopted pursuant to this Chapter do not affect:
 - 1. Existing legal uses of property 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 (50) percent of its value, as determined by a competent appraiser, any further use shall comply with this Chapter and regulations of the city.
 - 2. Reasonable repair or alteration of property for the purposes for which the property was legally used on August 3, 1984, 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 (50) percent 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 A.R.S. 48-3613.
 4. Facilities constructed or installed pursuant to a certificate of environmental compatibility issued pursuant to A.R.S. 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 subsection 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 Floodplain 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.

8-6-8 Declaration of Public Nuisance

Every new structure, building, fill, excavation or development located or maintained within any area of special flood hazard after August 8, 1973, in violation of the Article is a public nuisance per se and may be abated, prevented or restrained by action of this political subdivision.

8-6-9 Abatement of Violations

Within 30 days of discovery of a violation of this Chapter, the Floodplain Administrator shall submit a report to the Floodplain Board, which shall include all information available to the Floodplain Administrator which is pertinent to said violation. Within 30 days of receipt of this report, the Floodplain Board shall either:

- A. Take any necessary action to effect the abatement of such violation; or
- B. Issue a variance to this Chapter in accordance with the provisions of Section 8-9 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, and he shall submit an amended report to the Floodplain Board within 20 days. At their 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 8-9, herein; or
- D. Submit to the Administrator of Federal Insurance Administration a declaration for denial of insurance, stating that the property is in violation of a cited State or

local law, regulation or Chapter, pursuant to section 1316 of the National Flood Insurance Act of 1968, as amended.

8-6-10 Unlawful Acts

- A. It is unlawful for any person to divert, retard or obstruct the flow of waters in any watercourse whenever it creates a hazard to life or property without securing the written authorization of the Floodplain Board. Where the watercourse is a delineated flood plain, it is unlawful to excavate or build any structure affecting the flow of waters without securing written authorization of the Floodplain Board.
- B. Any person violating the provisions of this section shall be guilty of a Class 2 misdemeanor.

8-6-11 Severability

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

ARTICLE 8-7 ADMINISTRATION

- 8-7-1 Establishment of Development Permit
- 8-7-2 Designation of the Floodplain Administrator
- 8-7-3 Duties and Responsibilities of the Floodplain Administrator

8-7-1 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 established in Section 8-6-2. Application for a development permit shall be made on forms furnished by the Floodplain Administrator and may include, but not be limited to: plans in duplicate drawn to scale showing the nature, location, dimensions, and elevation of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

- A. proposed elevation in relation to mean sea level, of the lower floor (including basement) of all structures; in Zone AO, elevation of existing highest adjacent natural grade and proposed elevation of lowest floor of all structures.
- B. Proposed elevation in relation to mean sea level to which any non-residential

structure will be floodproofed;

- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 8-8-1 C.3; and
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

8-7-2 Designation of Floodplain Administrator

The city manager or designee is hereby appointed to administer, implement, and enforce this Article by granting or denying development permits in accordance with its provisions.

8-7-3 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 Chapter have been satisfied;
 - 2. All other required State and Federal permits have been obtained;
 - 3. The site is reasonably safe from flooding;
 - 4. The proposed development does not adversely affect the carrying capacity of areas where base flood elevations have been determined but a floodway has not been designated. For purposes of this Chapter, "adversely affects" means that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will increase the water surface elevation of the base flood more than one foot at any point.
- B. Use Of Other Base Flood Data. When base flood elevation data has not been provided in accordance with Section 8-6-2, 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 8-8. Any such information shall be consistent with the requirements of the Federal Emergency Management Agency and the Director of Water Resources and shall be submitted to the Floodplain Board for adoption.
- C. Obtain and maintain for public inspection and make available as needed for flood insurance policies or effecting Increased Cost of Construction Coverage for

repetitive loss structures:

1. The certified elevation required in Section 8-8-1 C.1;
 2. The certification required in Section 8-8-1 C.2;
 3. The floodproofing certification required in Section 8-8-1 C.3; and
 4. Certified elevation required in 8-8-1 C.4-b.
 5. Permit records for repair of flood-related damage to structures on a cumulative basis over the life of the structure.
- D. Whenever a watercourse is to be altered or relocated:
1. Notify adjacent communities and the Arizona Department of Water Resources prior to such alterations or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration;
 2. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.
- E. Within one hundred twenty days after completion of construction of any flood control protective works which changes the rate of flow during the flood or the configuration of the floodplain upstream or downstream from or adjacent to the project, the person or agency responsible for installation of the project shall provide to the governing bodies of all jurisdictions affected by the project a new delineation of all flood plains affected by the project. The new delineation shall be done according to the criteria adopted by the Director of Water Resources.
- F. Advise the Flood Control District of Navajo County and any adjunct jurisdiction having responsibility for floodplain management in writing and provide a copy of development plan of all applications for floodplain use permits or variances to develop land in a floodplain or floodway within one mile of the corporate limits of the Holbrook, Arizona, City of Holbrook. Also, advise the Flood Control District of Navajo County 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 the District's area of jurisdiction. Written notice and a copy of the plan of development shall be sent to the District no later than three (3) working days after having been received by the City of Holbrook.
- G. 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 8-9.

- H. Take action on violations of this Chapter as required in Section 8-6-9 herein.
- I. Notify the Administrator and director of water resources of acquisition by means of annexation, incorporation, or otherwise of additional areas of jurisdiction.

ARTICLE 8-8 PROVISIONS FOR FLOOD HAZARD REDUCTION

- 8-8-1 Standards of Construction
- 8-8-2 Standards for Storage of Materials and Equipment
- 8-8-3 Standard for Utilities
- 8-8-4 Standards for Subdivisions
- 8-8-5 Standards for Manufactured Homes
- 8-8-6 Standards for Recreational Vehicles
- 8-8-7 Floodways
- 8-8-8 Flood Related Erosion-Prone Area

8-8-1 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 flotation, collapse or lateral movement of the structure.
 - 2. All manufactured homes shall meet the anchoring standards of Section 8-8-5 B.
- B.
 - 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 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. New construction and substantial improvement of any structure shall have the lowest floor, including basement, elevated to or above the regulatory flood elevation. Nonresidential structures may meet the standards in Section 8-8-1 C.3. Upon the completion of the structure the elevation of the lowest floor, including basement, shall be certified by a registered professional engineer or surveyor and provided to the Floodplain Administrator.
2. New construction and substantial improvement of any structure in Zone AO shall have the lowest floor, including basement, higher than the adjacent grade at least one foot higher than the depth number on the FIRM, or at least two feet if no depth number is specified. Nonresidential structures may meet the standards in Section 8-8-1C. Upon completion of the structure, a registered professional engineer shall certify to the Floodplain Administrator that the elevation of the structure meets this standard.
3. Nonresidential construction shall either be elevated in conformance with Section 8-8-1 C.1 or 2 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 certified by a registered professional engineer or architect that the standards of this subsection are satisfied. Such certification shall be provided to the Floodplain Administrator.
4. Require, for all new construction and substantial improvements of nonresidential structures, that fully enclosed areas below the lowest floor that are useable 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 floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect to meet or exceed the following minimum criteria:

- a. A minimum of two openings have a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - 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.
5. Manufactured homes shall meet the above standards and also the standards in Section 8-8-5.

8-8-2 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 are 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 flotation or if readily removable from the area within the time available after flood warning.

8-8-3 Standards for Utilities

- A. All new and 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.

8-8-4 Standards for Subdivisions

- A. All preliminary subdivision proposals shall identify the flood hazard area and the elevation of the base flood.

- B. All final subdivision plans will provide the elevation of proposed structure(s) and pads. If the site is filled above the base flood, the final 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.

8-8-5 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 10 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 the regulatory flood elevation; and
- B. Be securely anchored to an adequately anchored foundation system to resist flotation, 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.

8-8-6 Standards for Recreational Vehicles

All recreational vehicles placed on site will either:

- A. Be on site for fewer than 180 consecutive days, and 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
- B. Meet the permit requirements of Section 8-7 of this Chapter and the elevation and anchoring requirements for manufactured homes in Section 8-8-5.

8-8-7 Floodways

Located within areas of special flood hazard established in Section 8-8 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. Any encroachments including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. If Section 8-8-7 is satisfied, all new construction and substantial improvements shall comply with all other applicable flood hazard reduction provisions of Section 8-8.

8-8-8 Flood Related Erosion -Prone Area

- A. The Floodplain Administrator shall require permits for proposed construction and other development within all flood-related erosion-prone areas as known to the community.
- B. Permit applications shall be reviewed to 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 hazard.
- C. If a proposed development is found to be in the path of flood-related erosion or would increase the erosion hazard, such improvements shall be relocated or adequate protective measures shall be taken to avoid aggravating the existing erosion hazard.
- D. Within Zone E on the flood Insurance Rate Map, a setback is required for all new development from the lake, bay, riverfront or other body of water to create a safety buffer consisting of a natural vegetative or contour strip. This buffer shall be designated according to the flood-related erosion hazard and erosion rate, in relationship to the anticipated “useful life” of structures, and depending upon the geologic, hydrologic, topographic, and climatic characteristics of the 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.

ARTICLE 8-9 VARIANCE PROCEDURE

- 8-9-1 Nature of Variances
- 8-9-2 Appeal Board

8-9-3 Conditions for Variances

8-9-1 Nature of Variances

The variance criteria set forth in this section of the Chapter 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 Chapter 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 City of Holbrook 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 Chapter 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.

8-9-2 Appeal Board

- A. The Floodplain Board of Holbrook shall hear and decide appeals and requests for variances from the requirements of this Chapter.

- 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 Chapter.

- C. In passing upon such applications, the Floodplain Board shall consider all technical evaluations, all relevant factors, standards specified in other sections of this Chapter, and:
 - 1. The danger that materials may be swept onto other lands to the injury of others;
 - 2. The danger of life and property due to flooding or erosion damage;
 - 3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - 4. The importance of the services provided by the proposed facility to the

community;

5. The necessity to the facility of a waterfront location, where applicable;
 6. The availability of alternative locations 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 flood plain 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. Upon consideration of the factors of Section 8-9-2 C and the purposes of this Chapter, the Floodplain Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter.
- 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 8-9-2 F of this Chapter. 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 the Navajo County Recorder and shall be recorded in a manner so that it appears in the chain of the

title of the affected parcel of land.

- F. The Floodplain Administrator shall 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.
- G. 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, providing items in Section 8-9-2 C. 1-11 have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.
- H. Upon consideration of the factors of Section 8-9-2 and the purposes of this Chapter, the Floodplain Board may attach such conditions to the granting of variances as it deems necessary to further the purposes of this Chapter.
- I. The Floodplain Administrator shall maintain the records of all appeal actions and report any variances to the Federal Insurance Administration upon request.

8-9-3 Conditions for Variances

- A. Variances may be issued for the reconstruction, 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.
- 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;
 - 3. A showing that the use cannot perform its intended purpose unless it is located or carried out in close proximity to water. This includes only facilities defined in Section 8-5 of this Chapter in the definition of

"Functionally Dependent Use".

4. 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 \$25.00 for \$100.00 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 Section 8-9-2 E of this Chapter. 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 Navajo County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.