

Chapter 15.24

FLOOD DAMAGE PREVENTION

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15.24.010 Statutory authorization. The legislature of the State of California has in Government Code sections 65302, 65560 and 65800 conferred upon local governments authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the board of supervisors of the County of Tuolumne does hereby adopt the following floodplain management regulations.

15.24.020 Findings of fact.

A. The flood hazard areas of Tuolumne County are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

B. These flood losses are caused by uses that are inadequately elevated, floodproofed, or protected from flood damage. The cumulative effect of obstructions in areas of special flood

hazards which increase flood heights and velocities also contributes to flood losses.

15.24.030 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 legally enforceable regulations applied uniformly throughout the county to all publicly and privately owned land within flood prone or flood related erosion areas. These regulations are designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, and streets and bridges located in areas of special flood hazard;

F. 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 caused by flood damage;

G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and

H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

15.24.040 Methods of reducing flood losses. In order to accomplish its purposes, this chapter includes regulations to:

A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;

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

C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;

D. Control filling, grading, dredging, and other development which may increase flood damage; and

E. Prevent or regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas.

15.24.050 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.

"A zone" - see "Special flood hazard area".

"Accessory structure" means a structure that is either:

1. Solely for the parking of no more than 2 cars; or
2. A small, low cost shed for limited storage, less than 150 square feet and \$1,500 in value.

"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" means a geomorphologic feature characterized by a cone or fan-shaped deposit of boulders, gravel, and fine sediments that have been eroded from mountain slopes, transported by flood flows, and then deposited on the valley floors, and which is subject to flash flooding, high velocity flows, debris flows, erosion, sediment movement and deposition, and channel migration.

"Apex" means the 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.

"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.

"Area of shallow flooding" means wherever 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. Such flooding is characterized by ponding or sheet flow.

"Area of special flood-related erosion hazard" is the land within a county which is most likely to be subject to severe flood-related erosion losses. The area may be designated as Zone AE on the Flood Insurance Rate Map (FIRM).

"Area of Special Flood Hazard." See "Special flood hazard area."

"Base flood" means a flood having a one percent chance of being equaled or exceeded in any given year (also called the "100-year flood"). Base flood is the term used throughout this chapter.

"Base flood elevation (BFE)" means the elevation shown on the Flood Insurance Rate Map for Zone AE that indicates the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year or an area of shallow flooding.

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

"Building." See "Structure."

"Development" means any manmade 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 or storage of equipment or materials.

"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.

"Existing manufactured home park or subdivision" means a manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) was completed before April 18, 1978.

"Expansion to an existing manufactured home park or subdivision" means the preparation of additional sites by the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads).

"Flood, flooding, or flood water" means:

1. A general and temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters, the unusual and rapid accumulation or runoff of surface waters from any source; and

2. The condition resulting from flood-related erosion.

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

"Flood Insurance Rate Map (FIRM)" means the official map on which the Federal Emergency Management Agency or Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the county.

"Flood Insurance Study" means the official report provided by the Federal Insurance Administration that includes flood profiles, the Flood Insurance Rate Map, the Flood Boundary

and 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" is the community development director or his/her designee designated by section 15.24.130 to administer and enforce the floodplain management regulations.

"Floodplain management" means the operation of an overall program of corrective and preventive measures for reducing flood damage and preserving and enhancing, where possible, natural resources in the floodplain, including but not limited to emergency preparedness plans, flood control works, floodplain management regulations, and open space plans.

"Floodplain management regulations" means this chapter and 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-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 level or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm, or by an unanticipated force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual and unforeseeable event which results in flooding.

"Flood-related erosion area" or "Flood-related erosion prone area" means a land area adjoining the shore of a lake or other body of water, which due to the composition of the shoreline or bank and high water levels or wind-driven currents, is likely to suffer flood-related erosion damage.

"Flood-related erosion area management" means the operation of an overall program of corrective and preventive measures for reducing flood-related erosion damage, including but not

limited to emergency preparedness plans, flood-related erosion control works, and floodplain management regulations.

"Floodproofing" means any combination of structural and nonstructural 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. For guidelines on dry and wet floodproofing, see FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93.

"Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. Also referred to as "Regulatory Floodway."

"Floodway fringe" is the area of a floodplain on either side of the regulatory floodway where encroachment may be permitted.

"Fraud and victimization" means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the board of supervisors will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the county for fifty to one hundred years. Buildings that are permitted to be constructed below the base flood elevation are subject during all those years to increased risk of damage from floods, while future owners of the property and the county as a whole are subject to all the costs, inconvenience, danger, and suffering that those increased flood damages bring. In addition, future owners may purchase the property, unaware that it is subject to potential flood damage, and can be insured only at very high flood insurance rates.

"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 dock facilities, port facilities that are necessary for the loading and unloading of cargo or passengers, and boat building and boat repair facilities, but does not include long-term storage or related manufacturing facilities.

"Governing Body" is the County of Tuolumne Board of Supervisors, empowered to adopt and implement regulations to provide for

the public health, safety and general welfare of its citizenry.

"Hardship" means the exceptional hardship that would result from a failure to grant the requested variance. The board of supervisors 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 exceptional hardships. 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 put the parcel to a different use than originally intended, or to build elsewhere.

"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 with 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 accord with sound engineering practices.

"Lowest floor" means the lowest floor of the lowest enclosed area, including basement. An unfinished or flood-resistant enclosure below the lowest floor that is 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, it conforms to applicable non-elevation design requirements, including, but not limited to:

- a. The flood opening standard in section 15.24.150(C)(3);
- b. The anchoring standards in section 15.24.150(A);
- c. The construction materials and methods standards in section 15.24.150(B); and
- d. The standards for utilities in section 15.24.150(D).

"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 rent or sale.

"Market value" is defined in the County of Tuolumne substantial damage/improvement procedures in compliance with FEMA publication FEMA 213, "Answers to Questions About Substantially Damaged Buildings" on file at the community development department.

"Mean sea level" means, for purposes of the National Flood Insurance Program, the North American Vertical Datum of 1988 or other datum, to which base flood elevations shown on the county's Flood Insurance Rate Map are referenced.

"New construction" for floodplain management purposes, means structures for which the "start of construction" commenced on or after April 18, 1978 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 April 18, 1978.

"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" or "100-year flood" – See definition for "Base Flood."

"Program deficiency" means a defect in the county's floodplain management regulations or administrative procedures that impairs effective implementation of those floodplain management regulations.

"Public safety and nuisances" means the granting of a variance must not result in anything which is injurious to safety or health of an entire community or neighborhood, or any considerable number of persons, or unlawfully obstructs the free passage or use, in the customary manner, of any navigable lake, or river, bay, stream, canal, or basin.

"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 not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

"Regulatory floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot.

"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 this chapter or otherwise deterring future similar violations, or reducing State or Federal financial exposure with regard to the structure or other development.

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

"Sheet flow area." See definition for "area of shallow flooding."

"Special flood hazard area (SFHA)" means an area in the floodplain subject to a one (1) percent or greater chance of flooding in any given year. It is shown on an FHBM or FIRM as Zone A or AE.

"Start of construction" includes substantial improvement and other proposed new development and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within one hundred eighty (180) days 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 excavating 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 that is principally above ground; this includes a gas or liquid storage tank or 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 fifty 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 (50) percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not however, include either: (1) any project for improvement of a structure to correct existing violations or 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 this chapter. 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 North American Vertical Datum (NAVD) of 1988, or other datum) of floods of various magnitudes and frequencies in the floodplains of lake or 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.

15.24.060 Lands to which this chapter applies.

This chapter shall apply to all areas of special flood hazards within the jurisdiction of the County of Tuolumne.

15.24.070 Basis for establishing the areas of special flood hazard. The areas of special flood hazard identified by the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study (FIS) and Floodway Boundary and Floodway Maps (FBFMs) for the County of Tuolumne dated September 5, 1990 with accompanying Flood Insurance Rate Maps (FIRMS) and Flood Boundary and Floodway Maps (FBFMS), and all subsequent amendments and/or revisions, are hereby adopted by reference and declared to be a part of this chapter. This Flood Insurance Study and attendant mapping is the minimum area of applicability of this chapter and may be supplemented by studies for other areas which allow implementation of this chapter and which are recommended to the board of supervisors by the floodplain administrator. The study FIRMS and FBFMS are on file at the Tuolumne County Community Development Department, 48 West Yaney Street, mailing – 2 South Green Street, Sonora, CA 95370.

15.24.080 Compliance.

A. No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this chapter and other applicable regulations, including conditions imposed on a permit.

B. A violation of this chapter shall be enforced as provided for in Chapter 1.10 of the Tuolumne County Ordinance Code.

C. Nothing herein shall prevent the floodplain administrator from taking such lawful action as is necessary to prevent or remedy any violation.

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

15.24.100 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.

15.24.110 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 manmade 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 Board of Supervisors, any officer or employee thereof, the State of California, or the Federal Emergency Management Agency, for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.

15.24.130 Designation of the floodplain administrator. The director of the community development department or his/her designee is hereby appointed as floodplain administrator to administer, implement, and enforce the provisions of this chapter.

15.24.140 Duties and responsibilities of the floodplain administrator. The duties and responsibilities of the floodplain administrator shall include, but not be limited to:

- A. Application Review. Review all applications for development projects to determine:
 - 1. That the requirements of this chapter have been satisfied, including determination of substantial improvement and substantial damage of existing structures;
 - 2. All other required state and federal permits have been obtained prior to issuing construction permits;
 - 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 within the jurisdiction of the County of Tuolumne;

5. The flood discharge exiting the proposed development of five parcels or more after construction is equal to or less than the flood discharge at the location prior to development; and

6. All Letters of Map Revisions (LOMRs) for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revisions (CLOMRs). Approved CLOMRs allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

B. Development of Substantial Improvement and Substantial Damage Procedures.

1. Using FEMA publication FEMA 213, "Answers to Questions About Substantially Damaged Buildings," develop detailed procedures for identifying and administering requirements for substantial improvement and substantial damage, to include defining "Market Value."

2. Ensure procedures are coordinated with other departments/divisions and implemented by county staff.

C. Review, Use, and Development of Other Base Flood Data. When base flood elevation data has not been provided in accordance with section 15.24.070, the floodplain administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer this chapter. Any such information shall be submitted to the board of supervisors for adoption.

A base flood elevation may be obtained using one of two methods from the FEMA publication, FEMA 265, "Managing Floodplain

Development in Approximate Zone A Areas – A guide for Obtaining and Developing Base (100-year) Flood elevations" dated July 1995.

D. Notification of other agencies.

1. Whenever a watercourse is to be altered or relocated:

a. Notify adjacent communities, the California Department of Fish and Game and the California Department of Water Resources prior to such alternation or relocation of a watercourse; and

b. Submit evidence of such notification to the Federal Emergency Management Agency; and

c. Require that the flood carrying capacity of the altered or relocated portion of said watercourse is maintained.

2. Whenever a Base Flood Elevation changes due to physical alterations:

a. Within six (6) months of information becoming available or project completion, whichever comes first, the floodplain administrator shall submit or ensure that the permit applicant submits technical or scientific data to FEMA for a Letter of Map Revision (LOMR); and

b. All LOMRs for flood control projects are approved prior to the issuance of building permits. Building Permits must not be issued based on Conditional Letters of Map Revisions (CLOMRs) Approved CLOMRs allow construction of the proposed flood control project and land preparation as specified in the "start of construction" definition.

c. Such submissions are necessary so that upon confirmation of those physical changes affecting flooding conditions, risk premium rates and floodplain management requirements are based on current data.

3. Whenever changes in corporate boundaries occur, notify FEMA in writing whenever the corporate boundaries have been modified by annexation or other means and include a copy of a map of the community clearly delineating the new corporate limits

E. Documentation of Floodplain Development. Obtain and maintain for public inspection and make available as needed:

1. The certification required by sections 15.24.150(C)(1)(d) and 15.24.150(F)(3) (lowest floor elevations);

2. The certification required by section 15.24.150(C)(2) (elevation or flood proofing of nonresidential structures);
3. The certification required by section 15.24.150(C)(3)(a) (wet flood proofing standard);
4. The certification of elevation required by section 15.24.150(E)(2) (subdivisions and other proposed development standards);
5. The certification required by section 15.24.150(H)(2) (floodway encroachments); and
6. A record of all variance actions, including justification for their issuance, and report such variances issued in the biennial report submitted to the Federal Emergency Management Agency.

F. **Map Determinations.** Make interpretations, where needed, as to the exact location of the boundaries of the areas of special flood hazards 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 15.24.147.

G. **Remedial Action.** Take action to remedy violations of this chapter as specified in section 15.24.080 herein.

H. **Biennial Report.** Complete and submit Biennial Report to FEMA.

I. **Planning.** Ensure County's General Plan is consistent with floodplain management objectives herein.

15.24.145 Development permit. A development permit shall be obtained before any construction or other development, including manufactured homes, within any area of special flood hazard established in section 15.24.070. Application for a development permit shall be made on forms furnished by the floodplain administrator at the Community Development Department. The applicant shall provide the following minimum information:

- A. Plans drawn to scale, showing:
 1. Location, dimensions, and elevation of the area in question, existing or proposed structures, storage of materials and equipment and their location;
 2. Proposed locations of water supply, sanitary sewer, and other utilities;

3. Grading information showing existing and proposed contours, any proposed fill, and drainage facilities;
4. Location of the regulatory floodway when applicable;
5. Base flood elevation information as specified in 15.24.070;
6. Proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and
7. Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in section 15.24.150 (C)(2) of this chapter and detailed in FEMA Technical Bulletin TB 3-93.

B. Certification from a registered civil engineer or architect that the nonresidential floodproofed building meets the floodproofing criteria in section 15.24.150(C)(2)(c).

C. For a crawl-space foundation, location and total net area of foundation openings as required in section 15.24.150(C)(3) of this chapter and detailed in FEMA Technical Bulletins 1-93 and 7-93.

D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

E. All appropriate certifications listed in section 15.24.140(E) of this chapter.

15.24.147 Appeals. The Board of Supervisors of the County of Tuolumne 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.

15.24.150 Standards of construction. In all areas of special flood hazards the following standards are required:

- A. **Anchoring.**
 1. All new construction, substantial improvements, and other proposed new development shall be adequately anchored to prevent flotation, collapse or lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
 2. All manufactured homes shall meet the anchoring standards of section 15.24.150(F).
- B. **Construction Materials and Methods.** All new construction and substantial improvements

of structures, including manufactured homes, shall be constructed:

1. With flood resistant materials, and utility equipment resistant to flood damage for areas below the base flood elevation;

2. Using methods and practices that minimize flood damage;

3. 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; and

4. Within areas of "shallow flooding" so that there are adequate drainage paths around structures on slopes to guide flood waters around and away from proposed structures.

C. Elevation and Floodproofing.

1. Residential Construction. All new construction or substantial improvements of residential structures shall have the lowest floor, including basement.

a. In the AE Zone, elevated to or above the base flood elevation;

b. In an "area of shallow flooding," elevated to or above the base flood elevation as determined under section 15.24.140(C);

c. In an A zone, without BFEs specified on the FIRM [unnumbered A zone], elevated to or above the base flood elevation as determined under section 15.24.140(C);

d. Upon the completion of the structure, the elevation of the lowest floor, including basement, shall be certified by a registered civil engineer or licensed land surveyor, and verified by the chief building official to be properly elevated. Such certification and verification shall be provided to the floodplain administrator.

2. Nonresidential construction. All new construction or substantial improvements of nonresidential structures shall either be elevated to conform with section 15.24.150(C)(1) or:

a. Be floodproofed, together with attendant utility and sanitary facilities, below the elevation recommended under section 15.24.150(C)(1), so that 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 engineer or architect that the standards of section 15.24.150(C)(2)(a) and (b) are satisfied. Such certifications shall be provided to the floodplain administrator.

3. Flood openings. All new construction, substantial improvement of structures with fully enclosed areas below the lowest floor (excluding basements) that are usable solely for parking of vehicles, building access or storage, 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 meet or exceed the following minimum criteria:

a. For non-engineered openings: Either a minimum of two openings on different sides having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided, the bottom of all openings shall be no higher than one foot above grade (openings may be equipped with screens, louvers, valves or other coverings or devices provided that they permit the automatic entry and exit of floodwaters); buildings with more than one enclosed area must have openings on exterior walls for each area to allow flood water to directly enter; or

b. Be certified by a registered civil engineer or architect.

4. Manufactured homes. Manufactured homes shall also meet the standards in section 15.24.150(F).

5. 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 BFE, must be designed to allow for the automatic entry of flood waters. See section 15.24.150(C)(3). Areas of the garage below the BFE must be constructed with flood resistant materials. See section 15.24.150(B).

2. A garage attached to a nonresidential structure must meet the above requirements or be dry floodproofed. For guidance on below grade parking areas, see FEMA Technical Bulletin TB-6.

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 15.24.050, may be constructed such that its floor is below the base flood elevation (BFE), 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 limited storage;

(b) The portions of the accessory structure located below the BFE must be built using flood-resistant materials;

(c) The accessory structure must be adequately anchored to prevent flotation, collapse and lateral movement;

(d) Any mechanical and utility equipment in the accessory structure must be elevated or floodproofed to or above the BFE;

(e) The accessory structure must comply with floodplain encroachment provisions in section 15.24.150(H); and

(f) The accessory structure must be designed to allow for the automatic entry of flood waters in accordance with section 15.24.150(C)(3).

2. Detached garages and accessory structures not meeting the above standards must be elevated above the base flood elevation.

D. Standards for Utilities.

1. 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.

2. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.

3. Other utilities standards are addressed in section 15.24.150(B) and 15.24.150(E)(4).

E. Standards for Subdivisions and Other Proposed Development

1. All preliminary subdivisions and other proposed development, including proposals for manufactured home parks and subdivisions, greater than 50 lots or 5 acres, whichever is the lesser, shall identify the Special

Flood Hazard Areas (SFHA) and Base Flood Elevation (BFE).

2. All final subdivision and other proposed development plans will provide the elevation of proposed structure(s) and pad(s). If the site is filled above the base flood elevation, the following as-built information shall be certified by a registered civil engineer or licensed land surveyor and provided as part of an application for a Letter of Map Revision based on Fill (LOMR-F) to the floodplain administrator:

a. Lowest floor elevation.

b. Pad elevation.

c. Lowest adjacent grade.

3. All subdivision and other proposed development proposals shall be consistent with the need to minimize flood damage.

4. All subdivision proposals and other proposed development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage.

5. All subdivisions and other proposed development shall provide adequate drainage to reduce exposure to flood hazards.

F. Standards for Manufactured Homes.

1. All manufactured homes that are placed or substantially improved within a special flood hazard area Zone A or AE on the county's Flood Insurance Rate Map or an area of shallow flooding, outside of a manufactured home park or subdivision, in a new manufactured home park or subdivision, in an expansion to an existing manufactured home park or subdivision, in an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

2. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision identified as Zone A or AE on the county's Flood Insurance Rate Map or an area of shallow flooding, that are not subject to the provisions

of section 15.24.150(F)(1) will be elevated so that either:

- a. The lowest floor of the manufactured home is at or above the base flood elevation, or
- b. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade.

3. Upon the completion of the structure, the elevation of the lowest floor including basement shall be certified by a registered civil engineer or licensed land surveyor, and verified by the chief building official to be properly elevated. Such certification and verification shall be provided to the floodplain administrator.

G. Standards for Recreational Vehicles. All recreational vehicles placed on sites within Zone A or AE shown on the county's Flood Insurance Rate Map or an area of shallow flooding will be on the site for fourteen or fewer calendar days per year and be fully licensed and ready for highway use. Storage of recreational vehicles is prohibited within a floodplain. 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.

An existing recreational vehicle within a mobilehome or recreational vehicle park may be used for habitation year round in an A or AE Zone, or an area of shallow flooding.

1. In the event that the recreational vehicle has incurred "substantial damage" as the result of a flood, the recreational vehicle shall be elevated on a permanent foundation such that the lowest floor of the recreational vehicle is elevated to or above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.

2. All recreational vehicles to be placed or substantially improved on sites in an existing recreational vehicle park or subdivision identified as Zone A or AE on the county's Flood Insurance Rate Map that are not subject to the provisions of section 15.24.150(F)(1) will be elevated so that either:

a. The lowest floor of the recreational vehicle is at or above the base flood elevation, or

b. The recreational vehicle chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than thirty-six inches in height above grade.

H. Floodways. Located within areas of special flood hazard established in section 15.24.070 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:

1. Until a regulatory floodway is adopted, no new construction, substantial development, or other development (including fill) shall be permitted within Zones A and AE, or an area of shallow flooding unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other development, will not increase the water surface elevation of the base flood more than one (1) foot at any point within the County of Tuolumne.

2. Within an adopted regulatory floodway, the County of Tuolumne shall prohibit encroachments, including fill, new construction, substantial improvements, and other development, unless certification by a registered civil engineer is provided demonstrating that the proposed encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.

3. If sections 15.24.150(H)(1) and (2) are satisfied, all new construction, substantial improvement and other proposed new development shall comply with all other applicable flood hazard reduction provisions of section 15.24.150.

I. Flood-related erosion-prone area.

1. The floodplain administrator shall require permits for proposed construction and other development within all flood-related erosion-prone areas known to the county.

2. 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. If a

proposed improvement is found to be in the path of flood-related erosion or would increase the erosion hazard, such improvement shall be relocated or adequate protective measures shall be taken to avoid aggravating the existing erosion hazard.

J. Crawlspace Construction. This subsection applies to buildings with crawl spaces up to 2 feet below grade. Below-grade crawl space construction in accordance with the requirements listed below will not be considered basements.

1. The building must be designed and adequately anchored to resist flotation, collapse, and lateral movement of the structure resulting from hydrodynamic and hydrostatic loads, including the effects of buoyancy. Crawl space construction is not allowed in areas with flood velocities greater than five (5) feet per second unless the design is reviewed by a qualified design professional, such as a registered architect or professional engineer;

2. The crawl space is an enclosed area below the BFE and, as such, must have openings that equalize hydrostatic pressures by allowing for the automatic entry and exit of floodwaters. For guidance on flood openings, see FEMA Technical Bulletin 1-93;

3. Portions of the building below the BFE must be constructed with materials resistant to flood damage. This includes not only the foundation walls of the crawl space used to elevate the building, but also any joists, insulation, or other materials that extend below the BFE;

4. Any building utility systems within the crawl space must be elevated above BFE or designed so that floodwaters cannot enter or accumulate within the system components during flood conditions;

5. Requirements for all below-grade crawl space construction, in addition to the above requirements, shall include the following:

a. The interior grade of a crawl space below the BFE must not be more than two (2) feet below the lowest adjacent exterior grade (LAG), shown as D in figure 3 of Technical Bulletin 11-01;

b. The height of the below-grade crawl space, measured from the interior grade of the crawl space to the top of the crawl space foundation wall must not exceed four (4) feet,

shown as L in figure 3 of Technical Bulletin 11-01, at any point;

c. There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space within a reasonable period of time after a flood event, not to exceed 72 hours; and

d. The velocity of floodwaters at the site should not exceed five (5) feet per second for any crawl space. For velocities in excess of five (5) feet per second, other foundation types should be used.

15.24.160 Nature of variances. The issuance of a variance is for floodplain management purposes only. Insurance premium rates are determined by statute according to actuarial risk and will not be modified by the granting of a variance. 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 Board of Supervisors to help protect its citizens from flooding. This need is so compelling, and the implications of the cost of insuring a structure built below flood level are so serious that variances from the flood elevation or from other requirements in this chapter would be 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. Variances from the requirements of this chapter shall be processed in accordance with the procedures established in Chapter 17.68 of this code.

15.24.170 Conditions for variances:

A. Generally, variances may be issued for new construction, substantial improvement, and other proposed new development 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 that the procedures of this chapter have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

B. Variances may be issued for the repair or rehabilitation of "historic structures" (as defined in section 15.24.050 of this chapter) upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as an historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.

C. Variances shall not be issued within any mapped regulatory floodway if any increase in flood levels during the base flood discharge would result.

D. Variances shall only be issued upon a determination that the variance is the "minimum necessary" considering the flood hazard to afford relief. "Minimum necessary" means to afford relief with a minimum of deviation from the requirements of this chapter. For example, in the case of variances to an elevation requirement, this means the Board of Supervisors need not grant permission for the applicant to build at grade, or even to whatever elevation the applicant proposes, but only to that elevation which the Board of Supervisors believes will both provide relief and preserve the integrity of this chapter.

E. 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" (as defined in section 15.24.050) 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" (as defined in section 15.24.050), cause "fraud or victimization" (as defined in section 15.24.050) of the public, or conflict with existing local laws or ordinances.

F. Any applicant to whom a variance is granted shall be given written notice over the signature of the floodplain administrator 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; and

2. Such construction below the base flood level increases risks to life and property.

3. A copy of the notice shall be recorded by the floodplain administrator in the office of the County of Tuolumne Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

G. The floodplain administrator will 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.

15.24.180 Appeal board.

A. The board of supervisors of the County of Tuolumne shall hear and decide requests for variances from the requirements of this chapter.

B. The board of supervisors 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, except section 15.24.080(B).

C. In passing upon such applications, the board of supervisors 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 existing individual owner and future owners of the property;

4. The importance of the services provided by the proposed facility to the county;

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 floodwaters 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. Any applicant to whom a variance is granted shall be given written notice over the signature of the clerk of the board of supervisors 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 twenty-five dollars for one hundred dollars of insurance coverage; and (2) such construction below the base flood level increases risks to life and property. A copy of the notice shall be recorded by the clerk of the board of supervisors in the office of the Tuolumne County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land.

E. The floodplain administrator will 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.
(Ord. 2991 § 1, 2008)