

**MOORPARK CITY COUNCIL
AGENDA REPORT**

TO: Honorable City Council

FROM: Yugal K. Lall, City Engineer/Public Works Director



DATE: November 5, 2009 (CC Meeting of 11-18-09)

SUBJECT: Consider Funding for Filing Flood Map Amendments with Federal Emergency Management Agency (FEMA) for the 2010 Digital Flood Insurance Rate Map (DFIRM) and a Resolution Amending the Fiscal Year 2009/10 Budget to Appropriate \$100,000 from the General Fund Reserve to Fund the Proposed 2010 DFIRM Amendments and Amendments to Chapter 15.24, Floodplain Management of the Moorpark Municipal Code to Comply with DFIRM 2010

SUMMARY

The City Council is being asked to consider authorizing staff to process Map Amendments with FEMA to remove a number of residential/commercial/industrial structures from the 2010 DFIRM 100-year floodplain; and to consider a resolution amending the Fiscal Year 2009/2010 Budget to increase the General Fund (1000) in an aggregate amount of \$100,000.00 to fund the DFIRM amendments.

BACKGROUND

(A) National Flood Insurance Act of 1968

In 1968, the United States Congress passed the National Flood Insurance Act, which created the National Flood Insurance Program (NFIP). The NFIP was designed to reduce future flood losses through local floodplain management and to provide protection for property owners against potential losses through an insurance mechanism that allows a premium to be paid for protection of those in need. As part of the agreement for making flood insurance available to a community, the NFIP requires the community to adopt floodplain management ordinances that meet certain minimum requirements intended to reduce future flood losses. The City is responsible for floodplain management within the City and to provide floodplain information to the property owners. On March 20, 2002 the City Council adopted Ordinance 279 (Attachment 1) for Floodplain Management and

Flood Damage Prevention and appointed the City Engineer as the Floodplain Administrator.

(B) Existing FIRM - September 1986

In September 12, 1986, FEMA approved Flood Insurance Rate Map (FIRM) for the City, this is the current FIRM and will be replaced with new DFIRM on January 20, 2010. In the FIRM of 1986 the 100-year flood was approximately 16,000 cfs through the Arroyo Simi with less than 50 structures in the 100-year floodplain requiring flood insurance and more than 90% of the City was within the 100 to 500 year flood zone, (Zone B and C) where no flood insurance was required. Less than 10% of the City was in Zone A, categorized by FEMA as a risk area and requiring flood insurance. Based on information provided by FEMA, there are approximately 75 structures currently that have flood insurance, however, some of these structures are not required to have flood insurance.

(C) Prelude to New DFIRM January 2010

After Hurricane Katrina in 2003, FEMA decided to update the DFIRM throughout the country and in September 2005, FEMA issued the preliminary DFIRM for the City as part of the update for the County of Ventura. The preliminary DFIRM depicted a large increase in the 100-year floodplain and floodway for the City as compared to the September 1986 FIRM, and it is estimated as much as 30% of the City was in the floodplain or floodway. The main reason for the increase in the floodplain and floodway was the increase in runoff in the 100-year flood from 1986 to 2003. The 1986 hydrology for the 100-year storm was approximately 16,000 cfs as compared to 22,000 cfs from the 2003 100-year storm hydrology study. In the development of the preliminary DFIRM map FEMA hired consultant Nolte and Associates (Nolte) to perform the technical and scientific studies and they used the latest hydrology and topographic information available. The hydrology that was used was prepared in 2003 by the Ventura County Watershed Protection District (VCWPD) in conjunction with the United States Army Corp of Engineers. The VCWPD 2003 Hydrology showed an increase of approximately 6,000 cubic feet per second (cfs) in the 100-year flood flowing through the Arroyo Simi as compared to the 1986 FIRM. The Arroyo Simi serves as the main conveyance channel for storm water through the City and it has two bottlenecks (the railroad bridge crossing to the south of Princeton Avenue and the Spring Road Bridge) that restrict the channel capacity to approximately 16,000 cfs. These bottlenecks create breakout in the stormwater over-spilling the channel and expanding the floodway and floodplain.

(D) September 2005 Preliminary DFIRM

In the September, 2005 preliminary DFIRM, there were:

1. Approximately 1600 new structures in the 100-year floodplain as compared to less than 50 structures in the 1986 map.
2. The depth of flooding from the 100-year flood was as high as 7 feet. There were approximately 200 structures in the flood zone with depth of flooding greater than 3 feet.
3. The floodway (the floodway is the channel of stream plus any adjacent floodplain

areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights) extended as far north to Los Angeles Avenue, and included Villa Campesina community, Village Crest/Water Stone Apartments and all properties between Los Angeles Avenue and the Arroyo Simi from east of Park Lane to west of Leta Yancy Road.

In the 1986 FIRM the floodway was not defined, however, the flood hazard areas were confined within the limits of the Arroyo Simi and the floodplain was very minimal with less than 50 structures in the 100-year floodplain.

On November 9, 2005, a public meeting was held at the City Council Chambers, (all property owners were advised of this meeting) wherein the preliminary September 2005 DFIRM was discussed along with flood insurance requirements. Representatives from both FEMA and VCWPD were present. In January 2006, the City Council authorized staff to appeal the preliminary 2005 DFIRM based on technical and scientific data. The appeal process through FEMA is very stringent and can only be based on sound technical and scientific data, as previously stated. The hydrology that was used by FEMA consultant, Nolte was prepared in 2003 by the Ventura County Watershed Protection District (VCWPD) in conjunction with the United States Army Corps of Engineers.

The City appeal was based on the technical and scientific principle that a percentage of the storm water breakouts at the two bottlenecks can be treated as disconnected from the main stem Arroyo Simi, resulting in storm water flowing through the City streets. City streets are designed as conveyance of storm water for 10-year frequency storm. This rationale was previously used by FEMA for the City of Simi Valley, wherein the limits of the floodway and floodplain boundaries were reduced. The topography used in the preparation of the 2005 preliminary DFIRM was developed by VCWPD in 2001 and provided to FEMA as the best available. In the appeal process the topography used was based on latest data provided by VCWPD. Unfortunately it could have been updated but new topography can cost as much as \$100,000.00. The topography used did not include the new data from Moonsong/Flory and Gisler/Fiji area.

The City developed a Scope of Work and selected Tetra Tech Inc. as the consultant to perform the appeal based on their qualifications and technical experience. General Funds in the amount of \$41,000 were used in FY 2005/2006 for the preliminary DFIRM appeal. Pacific Communities and Shea Homes developers on the north of the Arroyo contributed approximately \$85,000.00 towards the City's DFIRM appeal in FY 2006/2007 and FY 2007/2008. Both Pacific Communities and Shea Homes in the development stages of their properties were aware of City's appeal and contributed funds in this effort since the preliminary DFIRM had adversely affected their project that was contiguous with the Arroyo.

(E) Appeal Process and Outcome

During the period of February 2006 through August 2007, the City's consultant, Tetra

Tech Inc., submitted technical and scientific data to FEMA to support the appeal and as requested by FEMA. On January 9, 2008, FEMA accepted the City's appeal as warranted. The appeal resulted in the following changes to the preliminary DFIRM of September 2005:

- 1) Reduction of the floodway to within the limits of the Arroyo, with a maximum width of approximately 500 feet.
- 2) Removal of many residential/commercial structures from the floodway on the north side of the Arroyo Simi including the Villa Campesina community, Vintage Crest Apartments, Water stone Apartments and all structures south of Los Angeles Avenue west of Leta Yancy and east of Park Lane.
- 3) Removal of approximately 520 residential/commercial structures from to the 100-year floodplain south of Poindexter, from Gabbert Road to Moorpark Avenue; on High Street and downtown areas from Moorpark Avenue to Spring Road; and properties to the rear of Vons.
- 4) The depth from the 100-year flood was reduced to a maximum of 3 feet for approximately 200 structures that were greater than 3-foot zone. These structures are located in the downtown area and areas south of Poindexter Avenue, from Gabbert Road to Moorpark Avenue.
- 5) Addition of approximately 170 homes to the 100-year floodplain on the north of the Arroyo Simi in the Butter Creek/Peppermill, Harvester, and small portion of Maureen Lane areas.

At the same time, FEMA requested for levee certification for the Arroyo Simi, as a new requirement for the approval of the DFIRM, and this delayed the approval of the DFIRM. All the levees within the City, with the exception of one located on the south of the Villa Del Arroyo Mobile Home Park, is owned and maintained by the VCWPD. VCWPD, working in conjunction with FEMA, determined that all their levees within the City could not be certified as the levee did not have the required 3 foot of freeboard. The levee owned and maintained by the Villa Del Arroyo Mobile Home Park was not certifiable, as it is not owned and maintained by a governmental agency, a FEMA requirement for certification.

In November 2008, FEMA determined that the levee owned by Villa Del Arroyo was not acceptable for certification and approximately 240 structures in Villa Del Arroyo Mobile Home Park were added to the revised preliminary DFIRM 100-year floodplain.

On December 22, 2008, FEMA published a notice in the Star advising of the statutory 90-day period provided for appeals. At this juncture a second appeal was not filed with FEMA as staff determined that there was no new technical and scientific information/data to support further appeals. The new preliminary DFIRM was published on the City's web site with an explanation of the appeal.

On July 20, 2009, the City was advised of the approved FEMA map and on October 7, 2009, the City received the official DFIRM map. On the receipt of the approved DFIRM

notices were mailed to all affected property owners to advise them of flood insurance requirements. On November 2, 2009, a public a meeting was held to address concerns regarding the City appeal, flood insurance requirements, and grandfathering requirements. Representatives from FEMA and VCWPD were present to respond to concerns and questions on the new DFIRM.

(F) VCWPD Activities in Moorpark, Past, Present and Future

The Arroyo Simi within the City, along with the tributaries of Strathern Drain, Happy Camp Drain, Walnut Canyon Drain, Peach Hill Drain, and Gabbert Drain, are under the jurisdiction of VCWPD. Since 1986, other than routine maintenance, little or no capital improvements have occurred to the Arroyo Simi and its tributaries with the exception of Happy Camp Drain. The storm of January 2005 flooded the Happy Camp area and caused some damage. VCWPD obtained a federal grant and performed improvements to the Happy Camp Drain upstream of the City limits in 2008.

On an annual basis, City staff has reviewed the Capital Improvement Program (CIP) for the VCWPD. Improvements to the Arroyo Simi from the railroad crossing to Tierra Rejada Bridge have been included in the VCWPD's annual CIP until 2006. After 2006 these projects were placed in the future VCWPD's 5-10 years CIP due to insufficient funding.

The VCWPD is moving towards environmentally friendly projects using less concrete lined channels and more unlined channels, requiring open space and additional rights of way. VCWPD is currently working with stakeholders within the Calleguas Watershed (Arroyo Simi is included in this watershed) area to develop a global integrated water management plan. This plan is estimated to cost over \$44 million and would include detention basins that would potentially resolve all flooding issues within the City. This plan is in its infancy and is under review by staff.

At the present time VCWPD has no plans for the next 5-10 years for improvements to their storm drain facilities within the City that can remove structures from the 2010 DFIRM.

(G) City of Moorpark Storm Drain Improvements

The City recently completed the improvements to approximately 900 linear feet of the Walnut Canyon Storm Drain. The existing storm drain was undersized and could not carry the 100-year storm; the new storm drain was upsized and designed to carry the 100-year storm with acceptable freeboard. The City through the use of developer funds completed improvements for the widening of the Los Angeles Avenue bridge structure, and the reconstruction of the Spring Road Bridge. The Spring Road bridge was designed based on the pre-2003 hydrology of approximately 16,000 cfs.

(H) Developer Funded Improvements

The William Lyons development (Tract 5147/Meridian Hills), as part of their development

agreement, constructed a regional detention basin upstream of the Walnut Canyon Drain. This regional detention basin will potentially remove all structures from the 100-year floodplain that is attributable to the Walnut Canyon Drain. A Letter of Map Revision (LOMR) can be filed for the estimated 60 structures to be removed from the 100-year flood. Toll Brothers Tract 4128 and Pardee Tract 5045 constructed project specific detention basins that serve their local needs. Vintage Crest Apartments and Water Stone Apartments dedicated right-of-way to VCWPD and constructed detention basins to serve their projects.

DISCUSSION

The new DFIRM will be effective January 20, 2010. There are approximately 1,200 new structures in the new 100-year floodplain DFIRM map as compared to the 1986 map where there were approximately 50 structures. The property owners in the new 100-year floodplain have until January 20, 2010, to purchase flood insurance at the pre-January 20, 2010, flood insurance rate. Flood insurance is required by all federally guaranteed mortgages for a maximum amount of \$250,000. All the affected property owners have been notified and a public meeting was held on November 2, 2009, to answers all questions pertaining to the DFIRM, floodplain and flood insurance requirements.

With the new FEMA 2010 DFIRM there are approximately:

- 500 structures in Zone AO (1 foot); approximately 400 residential of which 200 are the Butter Creek/Peppermill/Harvester area/Maureen Lane, 75 in the Moorpark Estates, 125 in the downtown area and 100 commercial/industrial in the Gabbert/Poindexter area.
- 250 structures in Zone AO (2 foot); approximately 200 residential in the Shasta/Sierra and Flory/Sherman Areas and 50 commercial/industrial in the Gabbert/Poindexter area.
- 60 structures in Zone AO (3 foot); approximately 20 residential at Millard/Sherman area and 40 commercial/industrial in the Science Drive and Commerce Avenue areas.
- 130 structures in Zone AE on the north side of the Arroyo between Moorpark Avenue and Spring Road.
- 240 structures in Zone A (Villa Del Arroyo) due to the uncertified levee.

At the November 2, 2009, public meeting, staff informed the property owners that a recommendation would be made to the City Council to fund the processing of Letter of Map Amendment (LOMA Attachment 3) to FEMA for structures in Zone AO (1 foot) for potential removal from the 100-year floodplain. From a cursory review of record drawings and existing field conditions, it is staff's opinion that many structures within the 100-year

floodplain for the Butter Creek/Peppermill, Moonsong/Flory and Gisler/Fiji areas may be removed from 100-year floodplain, however, this may not hold true for structures within the Shasta/Sierra and downtown areas due to the relatively flat topography.

With the completion of the Meridian Hills detention basin, and the larger Walnut Canyon Storm Drain, the 2010 DFIRM 100-year floodplain can be further reduced. A Letter of Map Revision (LOMR) can be submitted to FEMA to revise the 2010 DFIRM based on these completed improvements. Most or all of the 60 properties within the 100-year floodplain attributed to Walnut Canyon tributary area may be removed.

The developers for Tract 5133 & 5425, (Shea Homes) and Pacific Communities on the south side of Los Angeles Avenue, will have to file for Letter of Map Revision Fill (LOMRF) to remove their proposed structures from within the 100-year 2010 DFIRM.

Commonwealth Studios and Hitch Ranch, as part of their development requirements, will be conditioned to construct a regional detention basin on the Hitch Ranch property. This regional detention/retention basin will remove all the remaining structures within the 100-year floodplain from the Gabbert/Walnut Canyon drainage areas.

INSURANCE RATES

For all new structures in the 100-year floodplain 2010 DFIRM, property owners can purchase insurance at the pre-FIRM rate (Attachment 4). The maximum policy of \$250,000 can cost \$348.00/year. If purchased after January 20, 2010, these policies can cost as much as \$2,000.00.

NEW FLOOD ORDINANCE

With the implementation of the 2010 DFIRM the existing City Ordinance No. 279 for floodplain management and flood damage prevention would be obsolete. Chapter 15.24 Floodplain Management would have to be updated to comply with the 2010 DFIRM.

PROPOSED ACTIONS

1. Staff proposes to authorize City's GIS consultant to prepare overlays of 2010 DFIRM on city map and on City's GIS system.
2. Consultant will review all structures designated Zone AO 1 foot, (approximately 500 structures) and if Letter of Map Amendment (LOMA) criteria are met, a LOMA will be processed.
3. Consultant will perform LOMR for the Walnut Canyon Detention Basin and storm drain to remove approximately 60 properties from the 2010 DFIRM.
4. Consultant will perform LOMRF for the Moorpark Police Services building, the Ruben Castro Human Health Services proposed building, and the Moorpark Public Services Facility building.

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FISCAL IMPACT

Staff is requesting an amendment to the FY 2009/2010 budget to appropriate \$100,000.00 from the General Fund Reserve to hire an engineering consultant to process map amendments to the 2010 DFIRM.

STAFF RECOMMENDATIONS (ROLL CALL VOTE)

1. Authorize the City Manager to sign engineering agreement with a consultant in an amount not to exceed \$100,000.00 to process map amendments for structures in the 2010 DFIRM Zone AO 1 foot, and others structures as approved by the City Manager.
2. Adopt Resolution No 2009 - _____ amending the FY 2009/2010 Budget.
3. Authorize staff to seek proposals from consultants to amend Chapter 15.24, Floodplain Management of Title 15, Building and Construction of the Moorpark Municipal Code to comply with DFIRM 2010.

Attachments

1. Ordinance No 279
2. Resolution
3. Glossary of Terms
4. Insurance cost guidelines
5. FEMA information and brochures

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ORDINANCE NO. 279

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF MOORPARK, CALIFORNIA, PROVIDING FOR FLOODPLAIN MANAGEMENT AND AMENDING CHAPTER 15.24, FLOOD DAMAGE PREVENTION

WHEREAS, the City Council has the authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry and;

WHEREAS, the floodplain management promotes the public health, safety, and general welfare, and;

WHEREAS, at a duly noticed public hearing on January 16, 2002, the City Council took public testimony, closed the hearing, and reached its decision.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MOORPARK DOES HEREBY ORDAIN AS FOLLOWS:

SECTION 1. Chapter 15.24 of Title 15 of the Moorpark Municipal Code is hereby amended in its entirety to read as follows:

Sections:

Article I. Statutory Authorization, Findings of Fact, Purpose, and Methods

15.24.010 Statutory authorization.

15.24.020 Findings of fact.

15.24.030 Purpose of provisions.

15.24.040 Methods of reducing flood losses generally.

Article II. Definitions.

15.24.050 Definitions.

Article III. General provisions.

15.24.060 Lands to which this ordinance applies.

15.24.070 Basis for establishing the areas of special flood hazard.

15.24.080 Compliance.

15.24.090 Abrogation and greater restrictions.

15.24.100 Interpretation of provisions.

15.24.110 Warning and disclaimer of liability.

Article IV. Administration

- 15.24.120 Development permits.
- 15.24.130 Designation of the administrator.
- 15.24.140 Duties and responsibilities of the administrator.
- 15.24.150 Appeals of Floodplain Administrator Decisions.

Article V. Construction Standards

- 15.24.160 Standards of construction.
- 15.24.170 Standards for utilities.
- 15.24.180 Standards for subdivisions.
- 15.24.190 Standards for manufactured homes.
- 15.24.200 Standards for recreational vehicles.
- 15.24.210 Floodways.

Article VI. Variances

- 15.24.220 Nature of variances.
- 15.24.230 Variance decision process.
- 15.24.240 Conditions for variances.

Article I. Statutory Authorization, Findings of Fact,
Purpose and Methods

Section 15.24.010 Statutory Authorization.

The Legislature of the State of California has in Government Code Sections 65302, 65560, and 65800 conferred upon local government units authority to adopt regulations designed to promote the public health, safety, and general welfare of its citizenry. Therefore, the City Council of City of Moorpark does hereby adopt the following floodplain management regulations.

Section 15.24.020 Findings of fact.

A. The flood hazard areas of City of Moorpark 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 contribute to the flood loss.

Section 15.24.030 Purpose of provisions.

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

- 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 sound use and development of areas of special flood hazard so as to minimize future blighted 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.

Section 15.24.040 Methods of reducing flood losses generally.

In order to accomplish its purposes, this ordinance includes methods and provisions 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 that 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.

Article II. Definitions.

Section 15.24.050 Definitions.

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

"Accessory 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 of highest elevation on an alluvial fan, which on undisturbed fans is generally the point where the major stream that formed the fan emerges from the mountain front.

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

"Area of shallow flooding" means a designated AO or AH Zone on the Flood Insurance Rate Map (FIRM). The base flood depths range from one to three feet; a clearly defined channel does not exist; the path of flooding is unpredictable and indeterminate; and velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

"Area of special flood hazard" - See "Special flood hazard area."

"Base flood" means a flood which has 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 ordinance.

"Basement" means any area of the building having its floor subgrade - i.e., below ground level - on all sides.

"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 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 that 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) is completed before the effective date of the floodplain management regulations adopted by a 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 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 or tidal waters; the unusual and rapid accumulation or runoff of surface waters from any source; and/or mudslides (i.e., mudflows); 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 Hazard Boundary Map" 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 Emergency Management Agency or 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 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 individual appointed by the City Council 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 ordinance and other zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as grading and erosion control) and other application 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.

"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 (Refer to FEMA Technical Bulletins TB 1-93, TB 3-93, and TB 7-93 for guidelines on dry and wet floodproofing.)

"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 that area of the floodplain on either side of the "Regulatory Floodway" where encroachment may be permitted.

"Fraud and victimization" as related to Section 15.24.250, "Conditions for Variances", of this ordinance, means that the variance granted must not cause fraud on or victimization of the public. In examining this requirement, the City Council will consider the fact that every newly constructed building adds to government responsibilities and remains a part of the community for fifty years 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 community 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 that 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, and does not include long-term storage or related manufacturing facilities.

"Governing body" is the City Council of the City of Moorpark, a municipal corporation.

"Hardship" as related to Section 15.24.240, "Conditions for Variances", of this ordinance means the exceptional hardship that would result from a failure to grant the requested variance. The City Council 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

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

2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or

4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as

determined by the Secretary of the Interior or 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 accord with sound engineering practices.

"Lowest floor" means the lowest floor of the lowest enclosed area, including basement (see "Basement" definition).

1. 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:

The wet floodproofing standard in Section 15.24.160.C3.

The anchoring standards in Section 15.24.160.A.

The construction materials and methods standards in Section 15.24.160.B.

The standards for utilities in Section 15.24.170.

2. For residential structures, all subgrade-enclosed areas are prohibited as they are considered to be basements (see "Basement" definition). This prohibition includes below-grade garages and storage areas.

"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" shall be determined by estimating the cost to replace the structure in new condition and adjusting that cost figure by the amount of depreciation that has accrued since the structure was constructed. The cost of replacement of the structure shall be based on a square foot cost factor determined by reference to a building cost estimating guide recognized by the building construction industry. The amount of depreciation shall be determined by taking into account the age and physical deterioration of the structure and functional obsolescence as approved by the Floodplain Administrator, but shall not include

economic or other forms of external obsolescence. Use of replacement costs or accrued depreciation factors different from those contained in recognized building cost estimating guides may be considered only if such factors are included in a report prepared by an independent professional appraiser and supported by a written explanation of the differences.

"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.

"New construction", for floodplain management purposes, means structures for which the "start of construction" commenced on or after the effective date of floodplain management regulations adopted by this 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 this 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" or "100-year flood" - see "Base flood."

"Public safety and nuisance" as related to Section 15.24.240, "Conditions for Variances", Variances, of this ordinance means that 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:

1. Built on a single chassis;

2. 400 square feet or less when measured at the largest horizontal projection;

3. Designed to be self-propelled or permanently towable by a light-duty truck; and

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

"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 the ordinance 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 "Area of shallow flooding".

"Special flood hazard area (SFHA)" means an area in the floodplain subject to a 1 percent or greater chance of flooding in any given year. It is shown on an FHBM or FIRM as Zone A, AO, A1-A30, AE, A99 or AH.

"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 180 days from the date of the permit. The actual start means either the first placement of permanent construction of a structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation; or the placement of a manufactured home on a foundation. Permanent construction does not include land preparation, such as clearing, grading, and filling; 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 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 proposed new development of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures that 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 ordinance, which permits construction in a manner that would otherwise be prohibited by this ordinance.

"Violation" means the failure of a structure or other development to be fully compliant with this ordinance. A structure or other development without the elevation certificate, other certifications, or other evidence of compliance required in this ordinance is presumed to be in violation until such time as that documentation is provided.

"Water surface elevation" means the height, in relation to the National Geodetic Vertical Datum (NGVD) of 1929, (or other datum, where specified) of floods of various magnitudes and frequencies in the floodplains of coastal 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.

Article III. General provisions.

Section 15.24.060 Lands to which this ordinance applies.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of City of Moorpark.

Section 15.24.070 Basis for establishing the areas of special flood hazard.

The areas of special flood hazard identified by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency (FEMA) in the Flood Insurance Study (FIS) dated September 26, 1984, and all subsequent amendments and/or revisions thereto, and accompanying Flood Insurance Rate Maps (FIRMs) and Flood Boundary and Floodway Maps (FBFMs), dated September 29, 1986, and all subsequent amendments and/or revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance. This FIS and attendant mapping is the minimum area of applicability of this ordinance and may be supplemented by studies for other areas which allow implementation of this ordinance and which are recommended to the City Council by the Floodplain Administrator. The study, FIRMs and FBFMs are on file at the office of the City Engineer, City Hall, 799 Moorpark Avenue, Moorpark, California 93021.

Section 15.24.080 Compliance.

No structure or land shall hereafter be constructed, located, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Nothing herein shall prevent the City Council from taking such lawful action as is necessary to prevent or remedy any violation.

Section 15.24.090 Abrogation and greater restrictions.

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

Section 15.24.100 Interpretation of provisions.

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

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

Section 15.24.110 Warning and disclaimer of liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of City Council, any officer or employee thereof, the State of California, or the Federal Insurance Administration, Federal Emergency Management Agency, for any flood damages that result from mere compliance with this ordinance or any administrative decision lawfully made hereunder. Property owners within floodplain areas shall not rely on the terms of this ordinance or any City review or approval of development as any guarantee or warranty against damage from flooding.

Article IV. Administration

Section 15.24.120 Development permits.

A development permit shall be obtained before any construction or other development begins 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 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. Site plan, including but not limited to:
for all proposed structures, spot ground elevations at building corners and 20-foot or smaller intervals along the foundation footprint, or one foot contour elevations throughout the building site; and proposed locations of water supply, sanitary sewer, and utilities; and if available, the base flood elevation from the Flood Insurance Study and/or Flood Insurance Rate Map; and if applicable, the location of the regulatory floodway; and

B. Foundation design detail, including but not limited to: proposed elevation in relation to mean sea level, of the lowest floor (including basement) of all structures; and for a crawl-space foundation, location and total net area of foundation openings as required in Section 15.24.160.C.3 of this ordinance and FEMA Technical Bulletins 1-93 and 7-93; and for foundations placed on fill, the location and height of fill, and compaction requirements (compacted to 95 percent using the Standard Proctor Test method); and

C. Proposed elevation in relation to mean sea level to which any nonresidential structure will be floodproofed, as required in Section 15.24.160 C.2 of this ordinance and FEMA Technical Bulletin TB 3-93; and

D. All appropriate certifications listed in Section 15.24.140.D of this ordinance; and

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

Section 15.24.130 Designation of the administrator.

The City Engineer is hereby appointed as Floodplain Administrator and shall administer, implement, and enforce this ordinance in accord with its provisions.

Section 15.24.140 Duties and responsibilities of the administrator.

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

A. Permit Review. Review all development permits to determine that:

1. Permit requirements of this ordinance have been satisfied,
2. All other required state and federal permits have been obtained,
3. The site is reasonably safe from flooding, and
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 ordinance, "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. Review, Use and Development of Other Base Flood Data:

1. When base flood elevation data has not been provided in accordance with Section 3.2, the Floodplain Administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal or state agency, or other source, in order to administer Sections 15.24.160 through 15.24.210. Any such information shall be submitted to the City Council for adoption; or

2. f no base flood elevation data is available from a federal or state agency or other source, then a base flood elevation shall be obtained using one of two methods from the FEMA publication "Managing Floodplain Development in Approximate Zone A Areas - A Guide for Obtaining and Developing Base (100-year) Flood Elevations" dated July 1995 in order to administer Sections 15.24.160 through 15.24.210:

a. Simplified method:

i. 100 year or base flood discharge shall be obtained using the appropriate regression equation found in a U.S. Geological Survey publication, or the discharge-drainage area method; and

ii. Base flood elevation shall be obtained using the Quick-2 computer program developed by FEMA; or

b. Detailed method:

i. 100 year or base flood discharge shall be obtained using the U.S. Army Corps of Engineers' HEC-HMS computer program; and

ii. Base flood elevation shall be obtained using the U.S. Army Corps of Engineers' HEC-RAS computer program.

C. Notification of Other Agencies. In alteration or relocation of a watercourse:

1. Notify adjacent communities and the California Department of Water Resources before alteration or relocation;

2. Submit evidence of such notification to the Federal Insurance Administration, Federal Emergency Management Agency; and

3. Assure that the flood carrying capacity within the altered or relocated portion of said watercourse is maintained.

D. Documentation of Floodplain Development. Obtain and maintain for public inspection and make available, as needed, all of the following:

1. Certification required by Section 15.24.160.C.1 and 15.24.190 (lowest floor elevations).

2. Certification required by Section 15.24.160.C.2 (elevation or floodproofing of nonresidential structures).

3. Certification required by Sections 15.24.160.C.3 (wet floodproofing standard).

4. Certification of elevation required by Section 15.24.180.B (subdivision standards).

5. Certification required by Section 15.24.210.A (floodway encroachments).

E. Map Determinations. Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazard. Where there appears to be a conflict between a mapped boundary and actual field conditions, grade and base flood elevations shall be used to determine the boundaries of the special flood hazard area. The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in sections 15.24.230 through 15.24.240.

F. Remedial Action. Take action to remedy violations of this ordinance as specified in Section 15.24.080.

Section 15.24.150 Appeals of Floodplain Administrator Decisions.

The City Council of City of Moorpark shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Floodplain Administrator in the enforcement or administration of this ordinance pursuant to the provisions of chapter 2.04 of the Moorpark Municipal Code.

Article V. Provisions for Flood Hazard Reduction

Section 15.24.160 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 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 15.24.200.

B. Construction materials and methods. All new construction and substantial improvement shall be constructed:

1. With flood resistant materials as specified in FEMA Technical Bulletin TB 2-93, and utility equipment resistant to flood damage;

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 if

4. Within Zones AH or AO, so that there are adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

C. Elevation and floodproofing. (See Section 15.25.050 definitions for "basement," "lowest floor," "new construction," "substantial damage" and "substantial improvement".)

1. Residential construction, new or substantial improvement, shall have the lowest floor, including basement:

a. In an AO zone, elevated above the highest adjacent grade to a height equal to or exceeding the depth number specified in feet on the FIRM, or elevated at least two feet above the highest adjacent grade if no depth number is specified. In AO zones without velocity the lowest floor shall be elevated above the highest adjacent grade to a height exceeding the depth number specified in feet on the FIRM by at least two feet, or elevated at least four feet above the highest adjacent grade if no depth number is specified.)

b. In an A zone, elevated to at least two feet above the base flood elevation; said base flood elevation shall be determined by one of the methods in Section 15.24.140.B of this ordinance.

c. In all other Zones, elevated to at least two feet above the base flood elevation.

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 verified by the building official to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

2. Nonresidential construction, new or substantial improvement, shall either be elevated to conform with Section 15.24.160.C.1 or together with attendant utility and sanitary facilities:

a. Be floodproofed below the elevation recommended under Section 15.24.160.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 professional engineer or architect that the standards of this section (15.24.160.C.2) are satisfied. Such certification shall be provided to the Floodplain Administrator.

3. All new construction and substantial improvement 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 floodwater. Designs for meeting this requirement shall follow the guidelines in FEMA Technical Bulletins TB 1-93 and TB 7-93, and must exceed the following minimum criteria:

a. Have a minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding. 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 floodwater; or

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

4. Manufactured homes shall also meet the standards in Section 15.24.190.

Section 15.24.170 Standards for utilities.

A. All new and replacement water supply and sanitary sewage systems shall be designed to minimize or eliminate:

1. Infiltration of flood waters into the systems, and
2. Discharge from the systems into flood waters.

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

Section 15.24.180 Standards for subdivisions.

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

B. All subdivision plans will provide the elevation of proposed structure(s) and pad(s). If the site is filled above the base flood elevation, the lowest floor and pad elevations 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.

Section 15.24.190 Standards for manufactured homes.

A. All manufactured homes that are placed or substantially improved, within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map, on sites located:

1. Outside of a manufactured home park or subdivision,
2. In a new manufactured home park or subdivision,
3. In an expansion to an existing manufactured home park or subdivision,
4. In an existing manufactured home park or subdivision on a site upon 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 two feet above the base flood elevation and be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement.

B. All manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision within Zones A1-30, AH and AE on the community's Flood Insurance Rate Map that are not subject to the provisions of paragraph 15.24.190.A will be securely fastened to an adequately anchored foundation system to resist flotation, collapse, and lateral movement, and be elevated so that either the:

1. Lowest floor of the manufactured home is at two feet above the base flood elevation, or
2. Manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and above the base flood elevation.
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 verified by the community building inspector to be properly elevated. Such certification and verification shall be provided to the Floodplain Administrator.

Section 15.24.200 Standards for recreational vehicles.

A. All recreational vehicles placed on sites within Zones A1-30, AH, and AE on the community's Flood Insurance Rate Map will either:

1. Be on the 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

2. Meet the permit requirements of Section 15.24.130 through 15.24.150 of this ordinance and the elevation and anchoring requirements for manufactured homes in Section 15.24.190.A.

Section 15.24.210 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 floodwaters, which carry debris, potential projectiles, and erosion potential, the following provisions apply:

A. Prohibit encroachments, including fill, new construction, substantial improvement, and other new development unless certification by a registered professional engineer is provided demonstrating that encroachments shall not result in any increase in [the base] flood elevation during the occurrence of the base flood discharge.

B. If Section 15.24.220.A is satisfied, all new construction, substantial improvement, and other proposed new development shall comply with all other applicable flood hazard reduction provisions of Section 15.24.170 through 15.24.220.

Article VI. Variances

Section 15.24.220 Nature of variances.

The variance criteria set forth in this section of the ordinance are based on the general principle of zoning law that variances pertain to a piece of property and are not personal in nature. A variance may be granted for a parcel of property with physical characteristics so unusual that complying with the requirements of this ordinance would create an exceptional

hardship to the applicant or the surrounding property owners. The characteristics must be unique to the property and not be shared by adjacent parcels. The unique characteristic must pertain to the land itself, not to the structure, its inhabitants, or the property owners.

It is the duty of the City 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 the flood ordinance are quite rare. The long-term goal of preventing and reducing flood loss and damage can only be met if variances are strictly limited. Therefore, the variance guidelines provided in this ordinance are more detailed and contain multiple provisions that must be met before a variance can be properly granted. The criteria are designed to screen out those situations in which alternatives other than a variance are more appropriate.

Section 15.24.230 Variance process.

A. Variances shall be processed in accordance with Chapter 17.44 "Entitlement-Process and Procedures" of the Municipal Code. The substance of all variances shall be in compliance with all FEMA requirements.

1. Filing shall be in accordance with Section 17.44.040 of the Municipal Code.

2. Noticing and Hearing shall be in accordance with Section 17.44.050 of the Municipal Code.

3. Entitlements shall be in accordance with Section 17.44.030 of the Municipal Code.

B. In determining approval or denial of requests for variances, the City Council shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and each of the following:

1. Danger that materials may be swept onto other lands to the injury of others.

2. Danger of life and property due to flooding or erosion damage.

3. 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. Importance of the services provided by the proposed facility to the community.

5. Necessity to the facility of a waterfront location, where applicable.

6. Availability of alternative locations for the proposed use that are not subject to flooding or erosion damage.

7. Compatibility of the proposed use with existing and anticipated development.

8. Relationship of the proposed use to the comprehensive plan and floodplain management program for that area.

9. Safety of access to the property in time of flood for ordinary and emergency vehicles.

10. Expected heights, velocity, duration, rate of rise, and sediment transport of the floodwaters expected at the site.

11. 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.

C. 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 in accordance with Federal law;

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

3. A copy of the notice shall be recorded by the Floodplain Administrator in the Office of the Ventura County Recorder and shall be recorded in a manner so that it appears in the chain of title of the affected parcel of land. A copy of the recorded notice shall be submitted to the Federal Insurance Administration, Federal Emergency Management Agency.

D. 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 Insurance Administration, Federal Emergency Management Agency.

Section 15.24.240 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 Sections 15.24.120 through 15.24.210 of this ordinance have been fully considered. As the lot size increases beyond one-half acre, the technical justification required for issuing the variance increases.

B. Variances may be issued for the repair or rehabilitation of "historic structures" as defined in Section 15.24.050 of this ordinance 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 ordinance. For example, in the case of variances to an elevation requirement, this means the City Council 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 City Council believes will both provide relief and preserve the integrity of the local ordinance.

E. Variances shall only be issued upon a:

1. Showing of good and sufficient cause;
2. Determination that failure to grant the variance would result in exceptional "hardship" (as defined in Section 15.24.050 of this ordinance) to the applicant; and
3. Determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, or extraordinary public expense, create a nuisance (as defined in Section 15.24.050 - see "Public safety or nuisance"), cause fraud or victimization (as defined in Section 15.24.050) of the public, or conflict with existing local laws or ordinances.

F. Variances may be issued for new construction, substantial improvement, and other proposed new development necessary for the conduct of a functionally dependent use provided that the provisions of Sections 15.24.240.A through 15.24.240.E are satisfied and that the structure or other development is protected by methods that minimize flood damages during the base flood and does not result in additional threats to public safety and does not create a public nuisance.

G. Upon consideration of the factors of Sections 15.24.220 and 15.24.230 and the purposes of this chapter, the City Council may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.

SECTION 2. Severability.

This ordinance and the various parts thereof are hereby declared severable. If any section, subsection, sentence, clause, phrase, part or portion of this Ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this Ordinance. The City Council declares that it would have adopted this Ordinance and each section, subsection, sentence, clause, phrase, part or portion thereof, irrespective of the fact that any one or more section, subsections, sentences, clauses, phrases, parts or portions be declared invalid or unconstitutional.

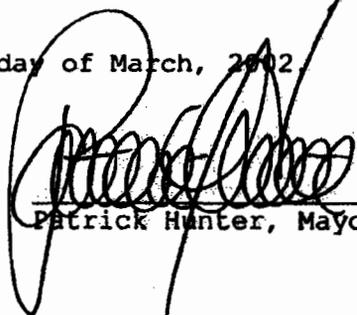
SECTION 3. Date effective.

This Ordinance shall become effective thirty (30) days after its passage and adoption.

SECTION 4. Publication.

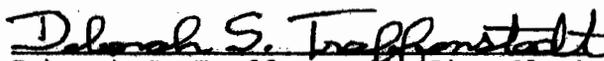
The City Clerk shall certify to the passage and adoption of this ordinance; shall enter the same in the book of original ordinances of said City; shall make a minute of the passage and adoption thereof in the records of the proceedings of the City Council at which the same is passed and adopted; and shall, within fifteen (15) days after the passage and adoption thereof, cause the same to be published once in the Moorpark Star a newspaper of general circulation, as defined in Section 6008 of the Government Code, for the City of Moorpark, and which is hereby designated for that purpose.

PASSED AND ADOPTED this 20th day of March, 2002.



Patrick Hunter, Mayor

ATTEST:


Deborah S. Traffenstedt, City Clerk



RESOLUTION NO. 2009 - _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MOORPARK, CALIFORNIA AMENDING THE FISCAL YEAR 2009/2010 BUDGET TO APPROPRIATE \$100,000 FROM GENERAL FUND RESERVE (1000) TO FUND THE PROPOSED 2010 DFIRM AMENDMENTS

WHEREAS, on July 1, 2009, the City Council adopted the Operating and Capital Improvement Budget for Fiscal Year 2009/10; and

WHEREAS, a staff report has been presented to the City Council requesting a budget adjustment in the aggregate amount of \$100,000.00; and

WHEREAS, Exhibit "A", attached hereto and made a part hereof, describes said budget amendment and its resultant impact to the budget line item.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MOORPARK DOES HEREBY RESOLVE AS FOLLOWS:

SECTION 1: That a Budget Amendment in the aggregate increase of \$35,000.00 as more particularly described in Exhibit "A", is hereby approved.

SECTION 2: The City Clerk shall certify to the adoption of this resolution and shall cause a certified resolution to be filed in the book of original resolutions.

PASSED AND ADOPTED this 18th day of November, 2009.

Janice S. Parvin, Mayor

ATTEST:

Debbie S. Traffenstedt, City Clerk

EXHIBIT A

BUDGET AMENDMENT FOR
GENERAL FUND RESERVE FOR
2010 DFIRM AMENDMENT
FY 2009/2010

FUND BALANCE ALLOCATION:

Fund Title	Fund-Account Number	Amount
GENERAL FUND	1000-5500	\$ 100,000.00
Total		\$ 100,000.00

EXPENDITURE APPROPRIATION:

Account Number	Current Budget	Revision	Amended Budget
1000-8100-0000-9103	\$ 5,000.00	\$ 100,000.00	\$ 105,000.00
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
	\$ -	\$ -	\$ -
Total	\$ 5,000.00	\$ 100,000.00	\$ 105,000.00

Finance Approval: 

GLOSSARY OF TERMS

LOMA

A letter from DHS-FEMA stating that an existing structure or parcel of land that has not been elevated by fill (natural grade) would not be inundated by the base flood.

CLOMA

A letter from DHS-FEMA stating that a proposed structure that is not to be elevated by fill (natural grade) would not be inundated by the base flood if built as proposed.

LOMR-F

A letter from DHS-FEMA stating that an existing structure or parcel of land that has been elevated by fill would not be inundated by the base flood.

CLOMR-F

A letter from DHS-FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the base flood if fill is placed on the parcel as proposed or the structure is built as proposed.

DFIRM 2010

	Special Flood Hazard Areas Subject to Inundation by the 1% Annual Chance Flood
The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard included Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.	
Zone A	No Base Flood Elevations determined.
Zone AE	Base Flood Elevations determined.
Zone AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
Zone AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
Zone AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
Zone A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
Zone V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
Zone VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
	Floodway Areas in Zone AE
The floodway is the channel of stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.	
	Other Flood Areas
Zone X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

NATIONAL FLOOD INSURANCE PROGRAM

**FIRM
FLOOD INSURANCE RATE MAP**

**CITY OF
MOORPARK,
CALIFORNIA
VENTURA COUNTY**

ONLY PANEL PRINTED

**COMMUNITY-PANEL NUMBER
060712 0005 A**

**EFFECTIVE DATE:
SEPTEMBER 29, 1986**



Federal Emergency Management Agency

KEY TO MAP

500-Year Flood Boundary	—————	
100-Year Flood Boundary	—————	
Zone Designations		
100-Year Flood Boundary	—————	
500-Year Flood Boundary	—————	
Base Flood Elevation Line With Elevation In Feet**	~~~~~513~~~~~	
Base Flood Elevation In Feet Where Uniform Within Zone**		(EL 987)
Elevation Reference Mark		RM7x
Zone D Boundary	—————	
River Mile		•M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
A0	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

**INITIAL IDENTIFICATION:
SEPTEMBER 29, 1986**

FLOOD HAZARD BOUNDARY MAP REVISIONS:

Find Your Rates

Below, you'll find a sampling of policy premiums for different amounts of coverage based on the latest rates for May 2008.

If you have any additional questions or are ready to purchase flood insurance, you can contact an agent.

Moderate-to-Low Risk Areas

RESIDENTIAL: Preferred Risk Policy (ZONES B, C, X) (PRE-/POST-FIRM)

A residential policy, based on preferred rates for qualified structures in moderate-to-low risk areas. A Preferred Risk Policy offers two types of coverage: Building & Contents and Contents Only.

Building & Contents Coverage	Annual Premium ^{2,3}		Contents Only ^{1,4} Coverage	Annual Premium ²	
	Without Basement or Enclosure	With Basement or Enclosure		Contents Above Ground (more than one floor)	All Other Locations (basement only not eligible)
\$20,000/ \$8,000	\$119	\$144	\$8,000	\$39	\$58
\$30,000/ \$12,000	\$148	\$173	\$12,000	\$53	\$80
\$50,000/ \$20,000	\$198	\$221	\$20,000	\$81	\$113
\$75,000/ \$30,000	\$230	\$260	\$30,000	\$93	\$130
\$100,000/ \$40,000	\$257	\$287	\$40,000	\$105	\$147
\$125,000/ \$50,000	\$277	\$307	\$50,000	\$117	\$164
\$150,000/ \$60,000	\$296	\$326	\$60,000	\$129	\$181
\$200,000/ \$80,000	\$326	\$361	\$80,000	\$153	\$201
\$250,000/ \$100,000	\$348	\$388	\$100,000	\$177	\$221

¹ Add the \$50.00 Probation Surcharge, if applicable.

² Premium includes Federal Policy Fee of \$13.00.

³ Premium includes ICC premium fee of \$6.00. Deduct this amount if the risk is a condominium unit.

⁴ Contents-only policies are not available for contents located in basement only.



FEMA

Letter of Map Amendment (LOMA) and Letter of Map Revision- Based on Fill (LOMR-F) Process

- Overview of Maps and Map Change Processes for Properties
- NFIP Regulations
- Guidance Documents
- LOMA Determination Requirements
- LOMR-F Determination Requirements
- Using eLOMA to Expedite Simple LOMA Requests
- Effect of LOMA or LOMR-F on Flood Insurance Requirements
- For More Information

Overview of Maps and Map Change Processes for Properties

As part of its administration of the National Flood Insurance Program (NFIP), the Federal Emergency Management Agency (FEMA) publishes flood hazard maps, called Flood Insurance Rate Maps, or FIRMs. The purpose of a FIRM is to show the areas in a community that are subject to flooding and the risk associated with these flood hazards. One of the areas shown on the FIRM is a Special Flood Hazard Area (SFHA). The SFHA is the area that has a 1-percent or greater chance of flooding in any given year; this area is also referred to by some as the 1-percent-annual-chance floodplain, base floodplain, or the 100-year floodplain. The flood hazard and risk information presented on the FIRMs is the result of engineering studies that are performed by engineering companies, other Federal agencies, or communities, which are reviewed for compliance with FEMA guidelines and approved by FEMA.

FEMA uses the most accurate flood hazard information available and applies rigorous standards in developing the FIRMs. However, because of limitations of scale or topographic definition of the source maps used to prepare a FIRM, small areas may be inadvertently shown within an SFHA on a FIRM even though the property (legally defined parcel(s) of land, structure[s]) is on natural ground and is at or above the elevation of the 1-percent-annual-chance flood. This elevation is most commonly referred to as the Base Flood Elevation, or BFE. Such cases are referred to as "inadvertent inclusions."

For other small areas, earthen fill may have been placed during construction, thereby elevating a small area within the SFHA to an elevation that is at or above the BFE. This construction may have taken place during the time the engineering study was being performed or subsequent to that study. Because of the limited extent of the elevated area and the limitations of the map scale, it may not have been possible for FEMA to show this area as being outside the SFHA and so these areas have been incorrectly included in the SFHA on the FIRM.

Recognizing that these situations do occur, FEMA established administrative procedures to change the designation for these properties on the FIRM. These processes are referred to as the Letter of Map

Amendment, or LOMA, process and the Letter of Map Revision Based on Fill, or LOMR-F, process. Through these processes, an individual who owns, rents, or leases property may submit certain mapping and survey information to FEMA and request that FEMA issue a document that officially removes a property and/or structure from the SFHA. In most cases, the applicant will need to hire a Licensed Land Surveyor or Registered Professional Engineer to prepare an Elevation Certificate for the property. Upon receiving a complete application forms package, FEMA will normally complete its review and issue its determination in 4 to 6 weeks.

NFIP Regulations

The regulatory requirements for the LOMA process are documented in Part 70 of the NFIP regulations. The regulatory requirements for the LOMR-F process are documented in Part 65 of the NFIP regulations. Individuals who are interested in reviewing these regulations may view or download them from the Guidance Documents and Other Published Resources page of the FEMA Website.

Guidance Documents

FEMA has prepared guidance documents to assist citizens with their LOMA and LOMR-F applications and submittals:

- The MT-EZ Form is to be used for LOMA requests involving a single residential lot or structure.
- The MT-1 Forms package is to be used for LOMA requests involving multiple residential lots or structures and for all LOMR-F requests.

Links to these guidance documents are provided in the "Fast Facts" section on the upper right-hand side of this page. The forms provide step-by-step instructions for requesters to follow and are comprehensive, ensuring that the requesters' submittals are complete and logically structured. Use of these forms allows FEMA to complete its review quicker and at lower cost to the NFIP. While completing the forms may seem burdensome, the advantages to the requesters outweigh any inconvenience.

LOMA Determination Requirements

- **LOMA Requests Involving One or More Structures:** For a LOMA to be issued by FEMA to remove one or more structures from the SFHA, the NFIP regulations require that the lowest adjacent grade (the lowest ground touching the structure) be at or above the BFE.
- **LOMA Requests Involving One or More Lots:** For a LOMA to be issued by FEMA to remove one or more entire lots from the SFHA, the NFIP regulations require that the lowest point on the lot(s) must be at or above the BFE.

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- **Review and Processing Fee:** There is no review and processing fee for the FEMA review of a LOMA request.
- **Required Information:** The requester is responsible for providing all of the information needed for FEMA's review of the request, including elevation information certified by a Licensed Land Surveyor or Registered Professional Engineer. For a complete listing of the information that must be submitted in support of a LOMA request, please refer to the MT-EZ (for single lot/structure requests) or MT-1 application forms package.

LOMR-F Determination Requirements

- **LOMR-F Requests Involving One or More Structures:** For a LOMR-F to be issued by FEMA to remove the structure from the SFHA, the NFIP regulations require that the lowest adjacent grade of the structure be at or above the BFE. The participating community must also determine that the land and any existing or proposed structures to be removed from the SFHA are "reasonably safe from flooding."
- **LOMR-F Requests Involving One or More Lots:** For a LOMR-F to be issued by FEMA to remove the entire lot and structure, both the lowest point on the lot and the lowest floor of the structure must be at or above the 1-percent-annual-chance flood elevation.
- **Review and Processing Fee:** FEMA charges a fee for the review and processing of LOMR-F requests. A link to the current fee schedule is provided in the "Fast Facts" section on the upper right-hand side of this page.
- **Required Information:** As with LOMA requests, the requester is responsible for providing all supporting information, including elevation information certified by a Licensed Land Surveyor or Registered Professional Engineer. For a complete listing of the information that must be submitted in support of a LOMR-F request, please refer to the MT-1 application forms package.

Using eLOMA to Expedite Simple LOMA Requests

To make submitting LOMA requests quicker and easier, FEMA created eLOMA—a web-based application within FEMA's Mapping Information Platform (MIP). eLOMA provides licensed land surveyors and professional engineers (Licensed Professionals) a system to submit simple LOMA requests to FEMA.

Note that not all LOMA requests qualify to be submitted using the eLOMA tool. At this time, only existing single residential structures or entire legally recorded properties qualify.

If all the required supporting data are submitted according to eLOMA criteria, a Licensed Professional could obtain a LOMA determination in a matter of minutes. The eLOMA process is much faster than the standard LOMA process, which historically took up to 60 days.

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To ensure the accuracy of the eLOMA determinations, FEMA performs random audits of eLOMA submittals. eLOMA requests that are audited by FEMA are processed within five business days of receiving all of the required supporting data from the Licensed Professional.

Local community Floodplain Administrators may be able to assist in locating a Licensed Professional qualified to use eLOMA. To learn more about eLOMA, please view *eLOMA Electronic Letters of Map Amendment*.

Effect of LOMA or LOMR-F on Flood Insurance Requirements

The issuance of a LOMA or LOMR-F eliminates the Federal flood insurance purchase requirement as a condition of Federal or federally backed financing; however, the mortgage lender retains the prerogative to require flood insurance as a condition of providing financing, regardless of the location of a structure. The purchase of a flood insurance policy is wise even if a structure is located outside the SFHA. More than 25 percent of flood claims are made by property owners located outside the SFHA. The issuance of a LOMA or LOMR-F does not mean the structure or lot is safe from all flooding; it means that the risk of flooding is not as high as it is in the SFHA. Events greater than the 1-percent-annual-chance event can and do occur. It is also important to note that the flood insurance premium rate for structures located outside the SFHA are lower than the premiums for structures located in the SFHA.

To learn more about flood insurance and receive other answers to questions about the NFIP, please visit [Answers to questions about the NFIP](#).

To learn more about the purchase of flood insurance and the options that are available, please visit [Flood Smart.gov](#).

For More Information

- Please e-mail a Map Specialist.
- Please call a Map Specialist in the FEMA Map Assistance Center; toll free, at 1-877-FEMA MAP (1-877-336-2627).
- Please register to receive Flood Map Modernization updates via e-mail.

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Understanding Flood Map Modernization

USING PRELIMINARY FLOOD HAZARD MAPS

FLOOD MAP MODERNIZATION



RELEASING PRELIMINARY FLOOD HAZARD MAPS

The release of preliminary flood hazard maps, or Digital Flood Insurance Rate Maps (DFIRMs), is an important step in the mapping lifecycle for a community. This release provides community officials, the public, and other stakeholders with their first view of the current flood hazards, including changes that may have occurred in the flood risks throughout the community (or county) since the last flood hazard map was published.

Typically, preliminary flood hazard maps are officially released at a meeting with community officials, which is then followed by a public comment period (the Appeals Period). The flood maps will be made available locally in paper form and some communities may also post the maps on a website. Making the preliminary maps available online allows citizens easier access to this information. It is important for stakeholders and property owners to understand how to use the preliminary maps to determine how they may be affected by them.

PROPERTY OWNERS CAN TAKE ADVANTAGE OF "GRANDFATHERING"

If a property is mapped into a high-risk area (shown as a zone labeled with letters starting with "A" or "V") and the owner has a mortgage through a federally regulated or insured lender,

flood insurance will be required when the DFIRMs become effective. Lenders do have the option to make the purchase of flood insurance a condition for their loans at any time, and some lenders may institute such requirements in advance of the maps becoming effective. Property owners, who obtain flood insurance before the DFIRMs become effective and then maintain it, may be able to benefit from the National Flood Insurance Program's "grandfathering" insurance rating process and pay a lower premium. Property owners should contact their insurance agent for more information.

If a property is mapped from a high risk zone into a low- or moderate-risk zone (shown as a zone labeled with the letter "X"), it is at the lender's discretion whether or not to require coverage. Property owners should remember that the flood risk has only been reduced, not eliminated. Most property owners can maintain coverage by easily converting their current flood insurance policy to the lower-cost Preferred Risk Policy (PRP), with premiums starting as low as \$119 a year. A PRP offers a significant cost savings while still providing coverage and the benefit of protection.



Sample Preliminary Map



FEMA

Understanding Flood Map Modernization

USING PRELIMINARY FLOOD HAZARD MAPS

INSURANCE AGENTS CAN PREPARE THEIR CLIENTS TO "LOCK-IN" SAVINGS

Insurance agents can compare the existing FIRMs and the preliminary DFIRMs to see how their clients may be affected and alert them to the upcoming change. If a building is going to be mapped into a high-risk zone, the owner should be encouraged to purchase (or maintain) a policy immediately and "grandfather" or lock in that zone for rating purposes when the map changes.



Sample Effective Map

If a building will be mapped out of a high-risk area, the property owner's flood insurance policy may be eligible for conversion to a PRP when the preliminary DFIRMs become effective. If this is the case, the owner will receive a refund for the difference in the premium paid with no gap in coverage. Insurance agents should remember that they must always rate flood insurance

policies using information from the FIRM that is currently in effect and not from the preliminary flood hazard map.

LENDERS CAN AVOID CLOSING DELAYS

Flood insurance must be in place for a property in a high-risk zone if the mortgage is through a federally regulated or insured lender. When the preliminary

DFIRMs are released, lenders (or their flood zone determination company) should not use them to determine the Federal mandatory purchase requirements. Some lenders may choose to require it as part of their internal underwriting of the loan, but it should not be used for complying with the Federal requirement.

As the DFIRM effective date nears, local loan originators and mortgage brokers should refer to the preliminary DFIRMs to determine whether a property might be mapped into a high-risk area when the maps become effective. By informing the borrower of this potential change before a loan is finalized, delays in loan closing that result from changes in flood insurance requirements will be minimized.

REAL ESTATE AGENTS CAN AVOID UNPLEASANT SURPRISES

Real estate agents and brokers can use the preliminary DFIRMs to determine what zone changes are likely to occur and how that might affect any properties for sale. This will help avoid any surprises at the time of closing that could delay and perhaps jeopardize the purchasing/sale of a property. Real estate agents and brokers should also become familiar with the flood insurance "grandfathering" options that can help keep insurance costs down, including the possible transferring of an existing flood insurance policy to the new owner.



FEMA

FLOOD MAP MODERNIZATION



ENGINEERS/DEVELOPERS/ BUILDERS CAN PLAN FOR SAFER CONSTRUCTION

The building industry should be aware of the differences between the flood hazard information presented on the currently effective FIRM and Flood Insurance Study (FIS) versus the updated flood hazard information presented on the preliminary DFIRM and associated FIS. The more conservative data between the two is typically required by the communities (and recommended by FEMA) to be used for design and permitting purposes. This will remain the case until the DFIRMs become effective. Note that even though the preliminary DFIRM data may sometimes show less restrictive information for an area compared to the current effective DFIRM data, it should not be used until it becomes effective.

PRELIMINARY FLOOD HAZARD MAPS: A KEY STEP IN CREATING SAFER COMMUNITIES

Flood risks can change over time. Water flow and drainage patterns can change dramatically because of surface erosion, land use, and natural forces. Preliminary flood maps help inform public officials, floodplain managers, industry stakeholders, and the public about how the community's flood risks have changed.

Using the preliminary DFIRMs, builders and developers can choose safer locations and start building at safer elevations; property owners can see if their flood risk has increased and choose to purchase flood insurance to start protecting themselves before the map changes. Lenders can review how their portfolio of loans or new loans coming up for closing might be affected and be better prepared to take action when the maps become effective. Real estate agents and insurance agents can determine their client's risk of flooding and the options available before or after the preliminary flood maps become effective. The preliminary DFIRMs are an important step in helping a community protect lives and reduce property damage as a result of flooding.

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is responsible for administering the National Flood Insurance Program (NFIP). FEMA and its partners provide flood hazard data and maps in support of the NFIP. Up-to-date flood hazard information and maps are needed to support the purchase and rating of flood insurance, enable community-based floodplain management, and increase the Nation's flood hazard awareness.

Please see your community official for more information about where preliminary maps for your area are available for viewing.



FEMA

NFIP Map & Zone Grandfather Rules



WHAT IS THE GRANDFATHER RULE?

A community will occasionally make structural improvements (dams, levees, etc.) to reduce the potential effects of flooding; experience new development aggravating the flooding situation, thereby expanding the floodplain; revise geographical boundaries resulting in the designation of additional flood hazard areas; or provide information to better delineate the Base Flood Elevation (BFE) and/or flood insurance risk zones. When these situations occur, the Flood Insurance Rate Map (FIRM) is revised and republished.

The implementation of a new FIRM raises the question-- HOW DOES THE NEW MAP AFFECT FLOOD INSURANCE RATES?

To recognize policyholders **who have remained loyal customers of the NFIP** by maintaining continuous coverage and/or **who have built in compliance with the FIRM**, the Federal Emergency Management Agency has "Grandfather rules" to allow such policyholders to benefit in the rating for that building.

PRE-FIRM (CONSTRUCTION PRIOR TO THE DATE OF THE COMMUNITY'S INITIAL FIRM OR PRIOR TO JANUARY 1, 1975)

1. If a policy was obtained prior to the effective date of a map change, the policyholder is eligible to maintain the prior zone and Base Flood Elevation as long as continuous coverage is maintained. The policy can be assigned to a new owner at the option of the policyholder.
2. Exception: If the community's first FIRM was effective *prior* to January 1, 1975, and a building has not been substantially damaged or improved since its original construction, the rates can be based on the FIRM zone and/or the BFE on the FIRM in effect at the time of construction. In this case, proper documentation must be provided. In all other instances, new policies for Pre-FIRM buildings must use the FIRM in effect when the coverage is applied for.

POST-FIRM (CONSTRUCTION ON OR AFTER THE DATE OF THE COMMUNITY'S INITIAL FIRM)

1. If a policy was obtained prior to the effective date of a map change, the policyholder is eligible to maintain the prior zone and base flood elevation as long as continuous coverage is maintained. The policy can be assigned to a new owner at the option of the policyholder.
2. If a building was constructed in compliance with a specific FIRM, the owner is always eligible to obtain a policy using the zone and Base Flood Elevation from that FIRM, provided that proof (refer to the Flood Insurance Manual, **Rating** section for acceptable documentation) is submitted to the insurance company. Continuous coverage is not required.

PREFERRED RISK POLICIES

1. Buildings written on Preferred Risk Policies are required to be located in zones B, C, or X on the FIRM in effect on the date of application and on the date of each subsequent renewal.
2. A building, which becomes ineligible for a Preferred Risk Policy due to a map change to a Special Flood Hazard Area, can be rewritten on a standard rated policy using zones B, C, or X.

FOR MORE INFORMATION, REFER TO THE FLOOD INSURANCE MANUAL, RATE PAGE 21

Go to <http://www.fema.gov/nfip/manual.shtml>



FEMA

JANUARY 2008

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Understanding Flood Map Modernization

FLOOD INSURANCE AND THE GRANDFATHERING RULE

NEW FLOOD MAPS: NEW INSURANCE REQUIREMENTS

The Federal Emergency Management Agency's (FEMA's) nationwide Flood Map Modernization (Map Mod) effort to update the current flood hazard maps is resulting in more reliable, easier-to-use, readily available Digital Flood Insurance Rate Maps (DFIRMs). Consequently, residents and business owners are able to obtain updated information about their current flood risks. In some cases, a property may be mapped into a lower risk zone; for others, a property's risk may change from a low- or moderate-risk area to a high-risk area. Other changes could include a change in high-risk area designation (e.g. from a zone beginning with the letter "A" to a zone beginning with the letter "V") or a change in the Base Flood Elevation (BFE)¹.

Being mapped into a higher risk zone or a change in BFE can result in an increase in flood insurance premium. It is important that property owners understand their options following changes to their community's DFIRMs. To recognize property owners that owned a policy before the maps became effective, or built to the correct standards relative to the flood map in effect at the time of construction, the National Flood Insurance Program (NFIP) has "Grandfather" rules to allow these property owners to benefit in the flood insurance rating of their building. This rating results in a cost savings to policyholders compared to a potential higher premium rate that results from a map revision.

PRE-FIRM BUILDINGS HAVE ONE OPPORTUNITY

A pre-Flood Insurance Rate Map (pre-FIRM) building is one that was constructed *prior* to the date of the community's first FIRM. In most cases, owners of pre-FIRM buildings have just one opportunity to use the grandfathering rule, which is *before the new DFIRMs become effective*. If a policy is obtained prior to the effective date of a map change, the policyholder is eligible to maintain the prior zone and Base Flood Elevation (BFE), as long as continuous coverage is maintained going forward. Continuity of coverage can be maintained even if the building is sold, as the policy can be assigned to a new owner at the option of the policyholder. There is a 30-day waiting period for a policy to become effective when purchasing a policy that is not required by a lender. The benefits of grandfathering by this method apply as long as the policy is purchased before the DFIRM effective date.

A further way for owners to reduce flood insurance costs on buildings located in low- or moderate-risk areas (identified on the current FIRM with the letters "B", "C", or "X") is to purchase a lower-cost Preferred Risk Policy² (PRP) prior to the DFIRM's effective date. This will *lock in the zone* to be used for future rating. When the PRP renews after the DFIRM is effective, it can no longer be written as a PRP but must be written using standard policy rates. However, because the low-

FLOOD MAP MODERNIZATION



STAYING INFORMED

Knowing when and where map changes are occurring will help you know what insurance options are available. FEMA provides updated monthly listings of all communities that have received a Letter of Final Determination (LFD), a document that states that a flood map will become effective in six months³.

- **LFD listings:** <http://www.fema.gov/plan/prevent/fhm/stu.html#lfd>
- **Flood Map Modernization:** <http://www.fema.gov/plan/prevent/fhm/dm.html>
- **Rating using the grandfather rule:** <http://www.fema.gov/business/fip/grandfather.shtml>
- **Flood Insurance:** <http://www.floodsmart.gov>

¹ The height to which flood waters have a 1 percent chance of reaching in any given year.

² The property must meet the PRP eligibility requirements; an insurance agent can provide more details.

³ Assuming that the community passes an ordinance that adopts the new flood maps before the proposed effective date of the map.



FEMA

Understanding Flood Map Modernization

FLOOD INSURANCE AND THE GRANDFATHERING RULE

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) is responsible for administering the National Flood Insurance Program (NFIP). FEMA and its partners provide flood hazard data and maps in support of the NFIP. Up-to-date flood hazard information and maps are needed to support the purchase and rating of flood insurance, enable community-based floodplain management, and increase the Nation's flood hazard awareness.

risk zone was locked in, the policy can be rewritten on a standard rated policy still using its low-risk zone rates (e.g. "X").

If a policy was not obtained for a pre-FIRM structure prior to the effective date of a DFIRM, the applicant cannot use the grandfathering rules for rating; however, the building is still eligible to receive the pre-FIRM rates based on the new zone rather than the actuarial (elevation-based) rates.

POST-FIRM BUILDINGS GET TWO OPPORTUNITIES

Buildings constructed after the effective date of the Initial FIRM (known as post-FIRM structures) have two opportunities to apply the grandfathering rules:

- purchase a policy before the DFIRMs become effective and *lock in the zone or BFE* (as described above for pre-FIRM structures); or
- provide evidence that the building was originally built in compliance.

If a post-FIRM building was constructed in compliance with the FIRM in effect at the time of construction, the owner is eligible to obtain a policy using the zone and the BFE from that FIRM, if it will result in a better insurance rate. To do so, the building cannot have been altered in a way that resulted in a floor being lower than the BFE on that FIRM (e.g., enclosing the area below an elevated building) and the building cannot have been substantially improved or damaged. The

FLOOD MAP MODERNIZATION



property owner must also provide proper documentation to the insurance company or agent that shows:

- The date of the FIRM;
- The flood zone on that FIRM in which the property is located;
- The BFE, if any, for that zone;
- A copy of the map panel showing the location of the building; and
- The rating element that is to be grandfathered.

A letter from a community official verifying this information, or an Elevation Certificate, is also acceptable. Note that continuous coverage is not required to maintain this rate. This method of grandfathering can be used at any time after the new DFIRM becomes effective. If used within 13 months of the new DFIRM's effective date, there is a one-day waiting period for the policy to become effective.

USE THE BEST RATE

Sometimes using the data based on the new DFIRMs will actually provide better rates than grandfathering. Both options should always be explored; always use the new map if it will provide a more favorable premium (lower rate).



FEMA