Dear Resident:

The City of Los Angeles joined the National Flood Insurance Program (NFIP) in 1980 and made federally-backed flood insurance available to all City residents. The NFIP/Community Rating System (CRS) was implemented by the Federal Emergency Management Agency (FEMA) in 1990 as a program for recognizing and encouraging community floodplain management activities that exceed the minimum NFIP requirements, and flood insurance premium rates are adjusted to reflect the reduced flood risk.

Since October 2005, the City has received a class 7 rating under CRS which means the residents within FEMA designated Special Flood Hazard Areas (SFHA) receive a 15% flood insurance premium discount and others in the City, outside the SFHA, receive a 5% discount.

In February 2009, the City was subjected to a 5-year cycle CRS verification visit conducted by FEMA’s consultant. The purpose of this 5-year cycle visit was to ensure the City continues to implement creditable activities to reduce flood risks. One of the activities identified under the 5-year cycle visit is to update the Floodplain Management Plan (FMP) and conduct a Repetitive Loss Property (RLP) analysis by April 2010.

In April 2010, the City Council adopted the latest FMP including RLP analysis. Both documents can be found online at: http://eng.lacity.org/projects/fmp/final_plan.htm

Natural and Beneficial Functions of Local Floodplain

A natural flood control system is composed of open spaces that provide natural and beneficial functions. Surface water, floodplains and watersheds are part of an ecological system that exists in a state of dynamic equilibrium. If a disturbance occurs in one part of the system, the entire system will readjust toward a new equilibrium. The geomorphological, hydrological, and biological effects of the system’s readjustments may be evident far upstream and downstream from the disturbance and may last for a long period of time. Therefore, floodplain development and modification should be viewed with caution and with careful assessment of the potential adverse impacts on the natural resources and beneficial functions, including flood protection to existing development.

Floodplains in their natural or relatively undisturbed state provide three broad sets of natural and beneficial resource values. These values are: (1) water resources values including natural moderation and attenuation of floods, water quality maintenance, and groundwater recharge; (2) biological resource values including large and diverse populations of plants and animals; and (3) societal resource values including historical, archeological, scientific, recreational, and aesthetic.

As a covered entity under Title II of the American with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.
The mandatory flood insurance purchase requirement applies to all forms of federally backed mortgages (excluding reverse mortgages) entered into on or after July 6, 2008. Federal disaster assistance declaration is not necessary in order to purchase NFIP flood insurance. The insurance is available to all City residents, including those who live outside of a Special Flood Hazard Area, with no restrictions on property age or location.

**Mandatory Flood Insurance Purchase Requirement**

If you have a federally backed mortgage on a property located in a Special Flood Hazard Area, you are required to purchase NFIP flood insurance. This applies to loans secured by properties located in flood zones designated by the Federal Emergency Management Agency (FEMA). The insurance is available to all residents of the City of Los Angeles, regardless of whether they live within or outside a Special Flood Hazard Area.

**Flood Protection Library**

A complete list of maintenance yards and sandbag vendors is available online at www://fema.gov. A copy of the manual Floodproofing Residential Properties is available on line at code_pub/floodmit.pdf.

**Investigation of Drainage Deficiencies**

If requested, a staff engineer from BOE will visit your property. Prior to the visit, please call the Building and Safety Call Center at (818) 374-4643 to inquire about the regulations and requirements for drainage investigations. This service is available at no cost to homeowners and is intended to resolve drainage problems in order to protect property values.

**Request a Drainage Investigation**

If you wish to request a drainage investigation, please call the Building and Safety Call Center at (818) 374-4643. Prior to the visit, please call the Building and Safety Call Center at (818) 374-4643 to inquire about the regulations and requirements for drainage investigations. This service is available at no cost to homeowners and is intended to resolve drainage problems in order to protect property values.

**Illegal Dumping**

Residents are encouraged to report illegal dumping by calling 21,000 or (310) 575-8534. Improperly disposed of items pose a danger to public health and safety and cost taxpayers tens of millions of dollars annually. The City of Los Angeles Bureau of Sanitation provides free Flood Zone Information at www.library.lapl.org and www.w.lapl.org.

**Investigating or Reporting Drainage Problems**

If you have questions about drainage problems on your property or complaints about drainage problems in your neighborhood, please contact the Bureau of Engineering at (818) 374-4643 or by email at bengineer@bure.usc.edu.

**Did you know...**

- The average Individuals and Households Program cost of a $50,000 flood policy may be as low as $180 annually, depending on where you live, or less than 50 cents per day.
- The average cost of a $100,000 flood policy is a little more than $2,880 annually at 4% interest. This rate is for new policies;续保的政策每年的保费会有所不同。

**Flood Insurance is better than Disaster Assistance**

Flood insurance is better than Federal disaster assistance because:

- It is available to all residents, including those who live outside of a Special Flood Hazard Area, regardless of whether they have insurance or not.
- It is available to all residents of the City of Los Angeles, regardless of whether they live within or outside a Special Flood Hazard Area.
- It covers losses caused by flooding, including the cost of repairs and related costs (as of 7/2009).
- About 5.7 million dollars were paid by the NFIP for policies in low- to moderate-risk areas from 1996 to 2005.
- The average Individuals and Households Program cost of a $50,000 flood policy may be as low as $180 annually, depending on where you live, or less than 50 cents per day.
- The average cost of a $100,000 flood policy is a little more than $2,880 annually at 4% interest. This rate is for new policies;续保的政策每年的保费会有所不同。
The original storm drain system was developed in the 1930s by the Army Corps of Engineers. As the City began to grow rapidly in the 1920s and 1930s, rainwater that was once absorbed by miles of undeveloped land began to run off the newly paved and developed areas, increasing amount of water flowing into Los Angeles rivers and local creeks. These waterways could not contain the increased amount of water and the region experienced massive flooding. Because of this, the Army Corp of Engineers lined the Los Angeles River and Ballona Creek with concrete and started the development of an underground urban drainage system. As Los Angeles continued to grow, a complex drainage system developed.

Today, the City’s storm drain system total 35,000 catch basins, over 1,500 miles of underground pipes, and 100 miles of open channels. Runoff from approximately 1,080 square miles of developed land reach Santa Monica and San Pedro Bays through approximately 60 storm drain outfalls. Approximately 100 million gallons of water flow through Los Angeles’ storm drain system on an average dry day. When it rains, the amount of water flowing through the channels can increase to 10 billion gallons reaching speeds of 35 mph and depths of 25 feet. Runoff from streets, parking lots, yards, etc. enters the storm drain, receives no treatment and flows directly to the ocean. Paint thinner and paint products, motor oil, pesticides, Styrofoam cups, paper, human and animal wastes, antifreeze, golf balls, dirty diapers and dead animals are found everyday in the storm drain system. Every year, roughly 40 tons of trash and debris are deposited onto our local beaches from stormwater runoff. It’s important to our environment and safety that we keep our waterways clean.

An ordinance passed in 1999 (LAMC Sec 64.70) makes it illegal to dump or discharge trash, debris, chemicals, contaminated water, or any other liquid or solid material into the storm drain system. Violators are subject to stiff fines and criminal prosecution. The Stormwater Program’s Enforcement Action Request receives many calls to its (800) 974-9794 hotline number from the public reporting illegal dumping violations and these calls are investigated.

If you want to know more about our storm drain system, please log on to: www.lastormwater.org

**Typical Flood Problems**

**Hillside Drainage Problem:** This occurs on properties located at the bottoms of steep hills. Floods happen when the drainage system is deficient or inadequately designed. Runoff is not diverted to the street and enters the home or garage. In some situations, neighbors change the normal drainage patterns, creating flood risks to other properties. Mudslides from slope failures are also common problems. If erosion on your property is a problem or if others have change the normal drainage patterns, you can call (213) 485-4820 to request an investigation, or on how to protect your home. Sandbags are provided free during the rainy season (please refer to the City Services Phone List provided).

**Street Drainage Problem:** Flooding may occur when storm runoff enters private property. If the property is located on a street sump area (lowest point of the nearby streets), or if the building pads on these properties are lower than the street level, and/or the driveway is sloped toward the house and garage, the street flow can pond. Drainage problems can be caused by undersized or broken City storm drains, or clogged City catch basins. If this problem applies to you, you can call the Bureau of Engineering to request a drainage investigation, and the Bureau of Sanitation at (800) 974-9794 to request that the catch basins be cleaned or obstructions removed from City drains.

**On-Site Drainage Problem:** When private drain inlets or v-ditches are inadequate or become plugged with yard debris, water ponds within the property and cannot drain to the street. Underground garages with insufficient drainage are also commonly flooded.

**Other Hazards:** These properties have site-specific problems that need special and individual attention. For example:

- Buildings damaged by coastal flooding exacerbat by storm drainage system.
- Catastrophic rains far exceeding drain capacity.
- Buildings built too low into the bed of a natural watercourse.
- Groundwater seepage enters the lower level of the house, flooding the basement after heavy storms.

**How it works:** Before a person can receive a loan or other financial assistance from one of the affected agencies or lenders, there must be a check to see if the building is an unusual flood hazard area (SFHA). The SFHA is the base (100-year) floodplain mapped on a Digital Flood Insurance Rate Map (DFIRM). It shown as one or more zones that begin with the letter “A” or “V”.

Many lenders and insurance agents also have copies of the DFIRM for the City of Los Angeles. It is the lender’s responsibility to check the DFIRM to determine if the building is in an SFHA. If the building is in an SFHA, your lender is required by law to require you to purchase a flood insurance policy on the building. The requirement is for structural coverage equal to the amount of loan (or other financial assistance) or the maximum amount available, whichever is less. The maximum amount available for a single-family house is $250,000.

**Special Flood Hazard Area**

The City of Los Angeles has approximately 30,000 structures in Special Flood Hazard Area (SFHA). According to the Federal Emergency Management Agency (FEMA), your property is located within or adjacent to an SFHA and has a 1% chance of being flooded each year.

The term “100-year flood” is misleading because it leads people to believe that it happens once every 100 years. The truth is that an uncommonly big flood can happen any year. The term “100-year flood” is really a statistical designation, and there is a 1-in-100 chance that a flood of this size will happen during any year. Big floods happen irregularly because the climate naturally varies over many years. Perhaps a better term would be the “1-in-100 chance flood”.

**Flooding Prevention Tips**

- Keep drainage areas (ditches, swales, small channels) free of debris.
- Consult an engineer to design a permanent water/ flood debris control device, if needed.
- Ensure that drainage pipes within your property are cleared and work properly.
- Landscape slope areas with plants suitable for fire retardant and erosion control.
- Report clogged catch basins to request cleaning and floodwaters overtopping the curb for engineering investigations.

This requirement affects loans and grants for the purchase, construction, repair, or improvement of any publicly or privately owned building in the SFHA, including machinery, equipment, fixtures, and furnishings contained in such buildings.

**Financial assistance:** include loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, and Federal Emergency Management Agency. The requirement also applies to secured mortgage loans from financial institutions, such as commercial lenders, savings and loan associations, savings banks, and credit unions that are regulated, supervised or insured by Federal agencies such as the Federal Deposit Insurance Corporation and the Office of Thrift Supervision. It also applies to all mortgage loans purchased by Fannie Mae or Freddie Mac in the secondary mortgage market.

FEMA grant assistance are provided to those who have suffered damage and loss from disasters occurring in that state. When there is a presidential declaration, FEMA begins accepting assistance applications for a period of time that varies depending on the scope and magnitude of the disaster as well as affected areas and amendment. Some types of disaster assistance may be available for new applicants maybe eligible for FEMA grant money. This disaster assistance does not have to be repaid and is to be used for vital expenses that cannot be managed via other means.

**How it works:** Before a person can receive a loan or other financial assistance from one of the affected agencies or lenders, there must be a check to see if the building is in an unusual flood hazard area (SFHA). The SFHA is the base (100-year) floodplain mapped on a Digital Flood Insurance Rate Map (DFIRM). It is shown as one or more zones that begin with the letter “A” or “V”.

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The mandatory purchase requirement does not affect loans or grants for items that are not covered by a flood insurance policy, such as vehicles, business expenses, landscaping, and vacant lots. It does not affect loans for buildings that are not in the SFHA, even though a portion of the lot may be flood prone. While not mandated by law, a lender may require a flood insurance policy as a condition of a loan for a property in any zone on a DFIRM.

The most important thing you can do to protect yourself from financial loss is to have flood insurance. Floods can also pose life-threatening risks to you and your family. So be smart. Be prepared for anything nature sends your way. Federal disaster assistance is usually a loan that must be paid back with interest. For a $50,000 loan at 4% interest, your monthly payment would be around $240 a month ($2,880 a year) for 30 years. Compare that to a $100,000 flood insurance premium, which is about $500 a year ($33 a month).

If you live in a low to moderate risk area and are eligible for the Preferred Risk Policy, your flood insurance premium may be as low as $112 a year, including coverage for your property’s contents.

You are eligible to purchase flood insurance because the City of Los Angeles participates in the National Flood Insurance Program. It takes 30 days after purchase for a policy to become effective. Flood insurance policies in Los Angeles are available at http://www.thenationalfloodprogram.org before the floodwaters start to rise. All claims and expenses of the NFIP program are funded by insurance premiums, not tax dollars.
Building a Flood Zone Map

Recent Headlines

Flood Zone

Prevent/floodplain/nfipk
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™ or call (213) 485-4820.
The most visible features of the City of Los Angeles are the 270 miles of open flood control channels, which include the Los Angeles River, Dominguez Channel, and Ballona Creek. They serve to collect rainwater from most of the City's storm drains and smaller open channels, and move the water out to either the Santa Monica Bay or San Pedro Bay. When it rains, it fills up with fast flowing water that can kill anyone who gets caught up or swept away in it. It is illegal to enter the flood control channels at anytime.

**What if I see someone fall into the channel?**

Immediately call 911, do not go into the channel to try to save them. Don’t try to save them using a rope, the force of the water will pull you in. Find some sort of flotation device, Styrofoam ice chests, foam cushions, any unattached object they can use to hang on to.

**What if I fall in?**

Remain calm, float on your back with your head up from the water. Use your feet and legs to steer yourself clear of obstructions. If a large obstacle is blocking the channel, try to flip over your stomach and approach the object head on, and crawl over the top of it. People die in swift water when they get pinned or trapped against debris. Never finding yourself in this situation is the best way of surviving swift waters.

- Do not walk through flowing water.
- Do not drive through a flooded area.
- Stay away from power lines and electrical wires.
- If flooded, have your electricity turned off by the Department of Water and Power.
- Look out for animals, especially snakes.
- Be alert for gas leaks.

**New Emergency Alert System**

On January 7, 2010, Los Angeles county officials launched an emergency alert system, similar to reverse 911, that will notify residents and businesses by phone, text or e-mail about dangerous conditions in their area. Residents and businesses will be contacted if there are emergencies like wildfires or floods near their home or offices, and tell them whether evacuation is necessary.

The Sheriff Department’s Emergency Communications Center will be responsible for sending out the alerts. Members of the public who would rather receive the emergency notification via their cell phone or e-mail account will have to register that information through the [www.alert.lacounty.gov](http://www.alert.lacounty.gov) web site.

You will also have the option of registering your fax numbers and voice-over IP lines. But only one phone number or e-mail address may be entered per street address. If the number is busy or does not answer, the system will

**PERSONAL SAFETY DURING A FLOOD**

**SUBSTANTIAL IMPROVEMENT**

1. Two (2) sets of plans, including floor plans, site plans, cross-section/elevation views. Plans must be signed and stamped by a licensed civil engineer or architect.
2. Topographic survey with footprint of proposed structure on existing site (undisturbed project site) stamped, dated and signed by licensed surveyor if Base Flood Elevation (BFE) is not known. Survey must reference 1988 Datum Reference and City Benchmark Map with ID number.
3. Site plan or survey should show proposed structure with elevation information of lowest finished floor and adjacent grounds. If Base Flood Elevation (BFE) is unknown, it will be determined from the highest grade adjacent to the improvement, plus the flood depth expected. The minimum finish floor elevation will be the BFE plus one foot for freeboard.
4. Plans must show waterproofing for materials susceptible to water damage below the minimum required finish floor elevation (FFE). Metal, concrete, cement and masonry are considered to be waterproof. Flood certificate will be required after construction for commercial projects.
5. Plans must also show flood venting at ground level based on the ratio of one square inch of venting per one square foot of additional improved space of building. Venting must sit at ground level.
6. If existing walls are to be removed as part of the improvement, the existing floor must be raised where the addition joins the existing structure.
7. Any additional information such as documentation or calculations confirming that new or improved structure will withstand potential flooding such as (but not limited to):
   - Hydraulic and hydrologic calculations
   - FEMA-established calculations for hydrostatic, hydrodynamic and buoyancy forces
   - Written correspondence from any government agency confirming approval of improvement within an agency easement
   - Structural plans and calculations well-stamped and signed with original signature of a licensed civil or structural engineer.

**LESS THAN A SUBSTANTIAL IMPROVEMENT**

1. Recent appraisal of existing structure by certified appraiser, not more than twelve months ago. County Assessors tax records may be used in lieu of an appraisal report.
2. Cost estimate from contractor, with breakdowns for labor, material, profit and overhead. Material costs must be further broken down by unit cost and quantity of each type of material.

Organizing costs and receipts in an easy-to-read format will facilitate the review of your case. Should your case require extensive time to review, you may need to pay an additional $1000.

**COMMERCIAL PROJECTS WITH SUBGRADE STRUCTURES**

In addition to the documents listed on the left, you must submit an emergency plan for flooding and a covenant agreement attached to the property.

**LETTER OF MAP AMENDMENT (LOMA)**

If you believe that your project does not sit within a floodplain, you must file a Letter of Map Amendment (LOMA) with FEMA, which approves your petition. Issuance of a LOMA eliminates the Federal flood insurance purchase requirement for Federal or federally backed financing, but not necessarily for private mortgage lenders.


**LETTER OF MAP REVISION (LOMR)**

If you believe that the floodplain boundary is incorrect and wish to request a re-drawing of the boundary, you must file a LOMR with FEMA (or a Letter of Map Revision – P (LOMR-P) for a revision based on increased elevation of property due to certified IIII). The LOMR application should include, but is not limited to, calculations specified on the application. The Stormwater Engineer can guide you in preparing the LOMR, if necessary. However, please review [www.fema.gov/plan/prepare/thrm/thrm_main.shtml](http://www.fema.gov/plan/prepare/thrm/thrm_main.shtml) before making an appointment.