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CITY OF LOS ANGELES
NATIONAL FLOOD INSURANCE PROGRAM
Annual Newsletter
2015-2016

Dear Resident:

2015 Floodplain Management Plan (FMP) Update

As a participant in the NFIP, the City is required to produce a five year FMP Update which has been adopted by the City of Los Angeles City Council on October 7, 2015. This plan was a joint effort of the Bureau of Engineering Street and Stormwater Division, citizen stake holders and the consulting team of Tetrattech.

The completion and adoption of this report will help the City maintain a Community Rating System (CRS) rating of 7 which translates into a 15 percent discount in the cost of flood insurance premium for residents living in a Special Flood Hazardous Areas (SFHA) and 5 percent discount in all other areas.

If you would like to obtain a copy of the plan, please contact the Bureau of Engineering Street and Stormwater Division at 213-485-4820 or e-mail ENG.NFIP@lacity.org.

You can also view and download a copy of the plan at:

<http://eng.lacity.org/projects/fmp/index.htm>

Average Yearly Rainfall

According to the latest statistics from NOAA's National Climatic Data Center, much of the Continental United States had near-average precipitation for the year. Above-average precipitation stretched across the northern tier, from the Pacific Northwest to the Upper Midwest, and into the Northeast. Despite near-average annual precipitation for California, long-term precipitation deficits (dating back over 3-years) in the state, combined with a record warm year in 2014, were associated with the exacerbation of drought conditions across the state.

Per County of Los Angeles precipitation records for the 2014-15 water year (from October 1, 2014 to September 30, 2015), the Downtown Los Angeles (USC) gauge ended the water year with 10.82 inches of rain. This is about 24% below average rainfall of 14.28 inches.

Recent Activities

Ballona Creek Physical Map Revision

On September 15, 2015 the Preliminary Flood Insurance Study and Preliminary Flood Insurance Rate Map panels were mailed to the City of Los Angeles and surrounding communities including Los Angeles County. A copy of the revised FIRM panels, FIS report, and Digital FIRM database to the Map Service Center can be found at:

<https://hazards.fema.gov/femaportal/prelimdownload/>

Flood Insurance Reform - The Law

The Consolidated Appropriations Act of 2014

The Consolidated Appropriations Act of 2014 prohibited the implementation of certain sections of the previous law – Biggert-Waters, effectively stopping certain rate increases while new law was being developed to address raise rate concerns.

Homeowner Flood Insurance Affordability Act of 2014 (HFIAA)

The HFIAA repealed certain parts of previous law – Biggert-Waters, restoring grandfathering, putting limits on certain rate increases and updating the approach to ensuring the fiscal soundness of the fund by applying an annual surcharge to all policyholders.

More information can be found at:

<http://www.fema.gov/flood-insurance-reform-law>

Los Angeles Local Hazard Mitigation Plan (LHMP)

The LHMP is a supplement to the City of Los Angeles Emergency Operations Plan and its Annexes. The plan provides guidance and mitigation measures to help City departments and area residences to minimize the risk of various hazards that threatens the City of Los Angeles.

The latest update was can be viewed and downloaded at:

http://emergency.lacity.org/stellent/groups/departments/@emd_contributor/documents/contributor_web_content/lacityp_019906.pdf

or by calling 213-484-4800 to request a copy.

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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.

Recent Activities (Continued from page 1)

California Coastal Analysis and Mapping Project (CCAMP)

Region IX has received funding appropriation from Congress to study and analyze flood hazards in coastal areas under the RISK Map. This will help mitigate gaps in the engineering and mapping for high flood risk areas impacted by coastal flooding. The entire studies will be under the umbrella of the California Coastal Analysis and Mapping Project. The approximate timeframe for issuance of the Los Angeles County Preliminary FIRM and FIS report is in late summer of 2016. FEMA will also return to Los Angeles County to facilitate a Resilience Workshop to support mitigation activities to reduce flood risks. Additional information on this and other coastal analysis and mapping projects can be found at:

<http://www.r9coastal.org>

NATIONAL FLOOD INSURANCE PROGRAM (NFIP)

The NFIP is a federal program enabling property owners in participating communities to purchase protection against property losses due to flooding. This insurance is designed to provide an insurance alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents.

Flood insurance covers direct losses caused by surface flooding, including a river flowing over its banks, a lake or ocean storm (including tsunami and seiches), and local flooding.

There is a 30 day waiting period before the policy becomes effective.

There are two types of coverage: Structural and Contents. Structural coverage is for the walls, floors, insulation, furnace and other items permanently attached to the structure. Contents coverage, purchased separately, requires the contents to be in an insurable structure.

Insurance Premium Discount

Due to the City of Los Angeles' active participation in the NFIP and CRS, new and renewed flood policies in SFHA continue to receive a 15% premium discount. Through the NFIP, flood insurance is available to all City residents who wish to purchase flood insurance regardless of their flood risk or flood history. Properties located outside the SFHA receive a 5% premium discount.

Insurance agents should use the latest Insurance Manual in order to apply the discount automatically. This manual is available on the Web at:

<http://www.fema.gov/flood-insurance-manual>

Flood Facts

Everyone lives in a flood zone. Floods and flash floods happen in all 50 states. Most homeowners insurance does not cover flood damage. Just a few inches of water can cause tens of thousands of dollars in damage to your property. A car can easily be carried away by just two feet of floodwater. If you live in an SFHA or high-risk area and have a Federally backed mortgage, your mortgage lender requires you to have flood insurance. In a high-risk area, your home is more than twice as likely to be damaged by flood than by fire. Flash flood often brings 10 to 20 feet wall of water. If you live in a moderate-to-low risk area and are eligible for the Preferred Risk Policy, your flood insurance premium may be as low as \$129 a year, including coverage for your property's contents. You are eligible to purchase flood insurance as long as your community participates in the National Flood Insurance Program. Anyone can be financially vulnerable to floods. From 2003 to 2012, flood insurance claims averaged nearly \$4 billion per year.

NFIP FEMA phone numbers

General Information.....(800) 427-4661
Need a Flood Insurance Agent?.....(800) 720-1093

Why Flood Insurance is better than Disaster Assistance?

Flood Insurance

- You are in control. Flood insurance claims are paid even if a disaster is not declared by the President.
- Between 20 and 25 percent of all claims paid by the NFIP are outside of an SFHA.
- There is no payback requirement.
- Flood insurance policies are continuous, and are not non-renewed or cancelled for repeat losses.
- Flood insurance reimburses you for all covered losses up to \$250,000 for homeowners and \$500,000 for businesses.
- The average flood insurance policy costs about \$650 per year.
- For a \$100,000 flood insurance coverage, your premium payment is about \$400 a year (\$33 a month).

Disaster Assistance

- Most forms of federal disaster assistance require a presidential declaration.
- Federal disaster assistance declarations are awarded in less than 50% of flooding incidents.
- The most typical form of disaster assistance is a loan that must be repaid with interest.
- The duration of a Small Business Administration (SBA) disaster home loan is approximately 30 years.
- The average Individuals and Households Program award is about \$3,000.
- Repayment on a \$50,000 SBA disaster home loan is \$240 a month or \$2,880 annually at 4% interest. This comes out to more than \$8 dollars per day.

Over 5.5 million people currently hold flood insurance policies in more than 21,800 communities across the U.S. From 1978, the NFIP has paid over \$48.1 billion for flood insurance claims and related costs (as of 7/08/13). Since the City of Los Angeles participates in the CRS, you can qualify for an insurance premium discount of up to 15%. For more policy and claim statistics, visit the National Flood Insurance Program at:

http://www.floodsmart.gov/floodsmart/pages/flood_facts.jsp

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CITY SERVICES AND PHONE LIST

For Information & Services

Please call **311**

Free Flood Information

The City of Los Angeles provides free flood zone information. Copies of the Federal Emergency Management Agency Flood Insurance Rate Maps are available for review in all Bureau of Engineering district offices. For flood zone information and availability of elevation certificates, contact us by email at Eng.nfip@lacity.org, or call (213) 485-4820 (*call back time is within 2 business days*). This information is also available to you directly through the Internet at:

<http://navigatela.lacity.org>

Investigation of Drainage Deficiencies

Request a drainage investigation when the water in the streets overtops the curb by calling your local Bureau of Engineering (BOE) District office:

Harbor District.....(310) 732-4691

West L. A.....(310) 575-8617

Valley District.....(818) 374-4643

Central District.....(213) 485-1604

If requested, a staff engineer from BOE will visit your property to review your flood problem and explain ways to stop flooding or prevent flood damage. Call the NFIP info line at (213) 485-4820. These services are free.

Illegal Dumping

Used motor oil, discarded food, trash and other debris are just some of the items routinely dumped into storm drains throughout the city. Curbside catch basins are the entry points of the storm drain system, which eventually discharges out into the ocean. Additionally, catch basins filled with debris can create unhealthy conditions in residential neighborhoods by becoming a breeding ground for rats, roaches and disease.

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.

Residents are encouraged to report illegal dumping by calling the Stormwater Program at (800) 974-9794. Please note: after 5:00PM and before 7:00AM Monday through Saturday and all day Sunday the (800)-974-9794 will roll over to the City's 311 number. More information are available at:

<http://www.lastormwater.org/about-us/contact-us/>

Before you build in the floodplain

All new development and construction in the floodplain is regulated and requires a special review before a building permit is issued.

Contact the NFIP Information Line at (213) 485-4820, or by email at: Eng.nfip@lacity.org during the planning stages to inquire about the regulations applicable to your project. *Suspected illegal floodplain development can be reported at the same number.*

Hillside Problems

Report problems with hillsides as well as temporary erosion caused by construction projects, and alteration or modifications to natural drainage that affect your property to the Building and Safety Call Center at: (888) 524-2845.

You can download the brochure "*Be Prepared: Homeowner's Guide for Flood, Debris, and Erosion Control*" published by the City of Los Angeles, Department of Building and Safety at:

http://www.ladbs.org/LADBSWeb/LADBS_Forms/Publications/floodmit.pdf

or call to request a copy at: (888) 524-2845.

Report Clogged Catch Basins

The City of Los Angeles Bureau of Sanitation routinely cleans out the city's 35,000 catch basins at least once a year, some with more frequency. However, if your neighborhood catch basin becomes clogged with debris, please call the City Hot Line (800) 974-9794 between 8 a.m. and 4 p.m. Monday through Friday, or (213) 485-7575 after 4 p.m. and on weekends.

And remember, storm drains are for rainwater only!

Sand Bags

Free sand and sandbags are offered through the Fire Stations and the Bureau of Street Services yards during the storm season. A complete list of maintenance yards and local fire stations offering sand bags is available on line at the following web site (or call 311 to request a copy of this list).

<http://bss.lacity.org/resurfacing/storm.htm>

Flood Protection Library

Additional information regarding flood protection, floodplain management and the NFIP can be found through the FEMA web site at: www.fema.gov

DRAINAGE SYSTEM MAINTENANCE

The original storm drain system was developed in the 1930 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 1,060 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.

A stream is a watercourse that is naturally occurring swale or depression, or engineered channel which carries fresh or estuarine water either seasonally or year round. It is the desire of the City of Los Angeles to protect streams and the native riparian area vegetation along stream systems and riparian areas. Los Angeles Municipal Code Sections 64.07,64.08, and 64.09 prohibit anything that obstructs or interferes with the flow of water through a water course or channel in any manner without proper permits.

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

<http://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 information 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 street 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 exacerbated by a storm drain failure;
- 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.

Flood 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.

NFIP (Continued from page 2)

Mandatory Purchase Requirement

The mandatory flood insurance purchase requirement applies to all forms of federal or federally related financial assistance for buildings located in an SFHA. A home located within an SFHA has a 26 percent chance of suffering flood damage during the term of a 30-year mortgage.

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.

The requirement also applies to secured mortgage loans from financial institutions, such as commercial lenders, savings and loan associations, saving 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.

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 SFHA. SFHAs are land areas that are at high risk for flooding. These areas are indicated on the Digital Flood Insurance Rate Map (DFIRM). It is 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. Federal regulations require purchase of structural insurance coverage equal to the amount of the loan or the maximum amount available from the NFIP, whichever is less. The maximum amount available for a single-family house is \$250,000 for structure and \$100,000 for its contents.

The mandatory purchase requirement does not affect loans or financial assistance 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 \$400 a year (\$33 a month).

If you live in a low-to-moderate-risk area and are eligible for the Preferred Risk Policy (PRP), your flood insurance premium may be as low as \$129 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 NFIP. It takes 30 days after purchase for a policy to take effect, so it's important to buy insurance before floodwaters start to rise. All claims and expenses of the NFIP program are funded by insurance premiums, not tax dollars.

Financial Assistance

Financial assistance includes loans and grants from agencies such as the Department of Veterans Affairs, Farmers Home Administration, Federal Housing Administration, Small Business Administration, and FEMA.

FEMA Grant Assistance

Grant assistance is 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 amendments to the governor's declaration request. Those applicants may be 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.

Increased Cost of Compliance (ICC) Coverage

If your property is damaged by flood, you may be required by law to bring your home up to community and/or state floodplain management standards. If you have NFIP insurance, and your home has been declared substantially damaged by your community, ICC coverage is provided to cover up to \$30,000 of the cost to elevate, floodproof, demolish, or relocate your property. ICC coverage is in addition to the coverage you receive to repair flood damage; however, the total payout on a policy may not exceed \$250,000 for residential buildings and \$500,000 for non-residential buildings.

ICC coverage does not apply to substantial improvements unless a structure is substantially damaged due to flooding. More information on ICC can be found at:

<http://www.fema.gov/library/viewRecord.do?id=1477>

FLOOD ZONE

Flood Zone Map

The flood zone map of the City of Los Angeles is included as an insert of this newsletter. If you want to verify whether or not your property is located within a flood zone, you can log on at: <http://navigatela.lacity.org> or email us at Eng.nfip@lacity.org or call (213) 485-4820.

The Bureau of Engineering keeps copies of the DFIRM for the City of Los Angeles. If you have recently purchased or re-financed your home, your lender may require you to obtain a flood insurance policy. Whether you own or rent the property you live in, you need to know the flood risks associated with the flood designation in order to take precautions that protect your interests. The City of Los Angeles prepares annual mailing to provide you with information that may help you understand and reduce the flood risk surrounding your home. If you have questions regarding this publication, you can email the City of Los Angeles at Eng.nfip@lacity.org or call (213) 485-4820. If you received this newsletter in error, please disregard.

What Can Homeowners Do if They Believe Their Homes are Erroneously Included in the Flood Zone ?

If a homeowner can show that the home is located above the Base Flood Elevation (BFE) he/she can apply for a map amendment by completing an application for a Letter of Map Amendment (LOMA) and submitting this request to FEMA. A LOMA application (known as MT-EZ) can be obtained on line at: <http://www.fema.gov/forms>

FEMA's review is free to individual property owners who apply for single lot LOMA review. However, a Registered Professional Engineer or Licensed Land Surveyor will need to be hired by the homeowner to certify the elevation information in the application. More information is available by accessing FEMA's web site at: <http://www.fema.gov/letter-map-amendment-letter-map-revision-based-fill-process>

If you would like assistance in completing a LOMA application from a Map Specialist, you may call the FEMA Map Assistance Center toll-free at (877)-FEMA-MAP or (877)-336-2627. Please note that the City does not approve or deny any map amendment requests since the FIRMs are published by a federal agency.

Building or Remodeling in the Flood Zone

All developments in the floodplain, not just construction of buildings, need local permits.

The Lowest Finished Floor (LFF) of all new buildings and existing building undergoing substantial improvement (including remodeling) located in SFHA must be one foot higher than the expected Base Flood Elevation (BFE) per City Ordinance No. 172081.

Certain flood hazard areas are considered floodways or passages to the 100-year flow, therefore, no new development will be allowed. Other areas that experience high velocity flow and heavy debris loads may require special design considerations.

No basements for residential structures located in the flood zones will be permitted in new buildings. Substantial improvements and substantial damage residential projects (including multiple residential units) will be required to seal any existing basements.

Mandeville Canyon is considered a Flood Risk Area and developers are likely to be required to obtain a watercourse permit per Special Order SO003-1005. A copy of the Special Order can be obtained by emailing a request to Eng.nfip@lacity.org.

If your property is in the flood zone, please contact the City's NFIP information line at (213) 485-4820 or email us at: Eng.nfip@lacity.org before designing your project.

What is Substantial Improvements?

Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

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

Floodplain management requirements apply to new construction and substantial improvements.

What is a Floodplain and Special Flood Hazard Areas (SFHA)?

Floodplain is defined as any land area susceptible to being inundated by flood waters from any source.

SFHAs are areas subject to inundation by a 100-year flood, a flood that has a 1-percent or greater chance of being equaled or exceeded during any given year. They are shown on the DFIRM as zones labeled with the letters A, AO, AH, A1-A30, AE, A99, AR, AR/AE, AR/AO, AR/A1-A30, AR/A, V, VE, and V1-V30. In an SFHA, there is at least a 1 in 4 chance of flooding during a 30-year mortgage. All home and business owners in these areas with mortgages from Federally-regulated or insured lenders are required to buy flood insurance.

For a more thorough explanation of a Floodplain and SFHA please check out:

<http://www.fema.gov/floodplain-management/flood-zones>

PERSONAL SAFETY DURING A FLOOD

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 as 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.

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 web site.

You will also have the option of registering your fax numbers and voice-over Internet Protocol (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 be re-dialed twice. If it reaches an answering machine, the system leaves a message. The system will also have the ability to detect and communicate with telecommunication devices for the deaf.

Tsunami - What to Do

Tsunamis (pronounced soo-ná-mees), also known as seismic sea waves (mistakenly called "tidal waves"), are a series of enormous waves created by an underwater disturbance such as an earthquake, landslide, volcanic eruption, or meteorite. A tsunami can move hundreds of miles per hour in the open ocean and smash into land with waves as high as 100 feet or more. From the area where the tsunami originates, waves travel outward in all directions. Once the wave approaches the shore, it builds in height. The topography of the coastline and the ocean floor will influence the size of the wave. There may be more than one wave and the succeeding one may be larger than the one before. That is why a small tsunami at one beach can be a giant wave a few miles away. All tsunamis are potentially dangerous, even though they may not damage every coastline they strike. A tsunami can strike anywhere along most of the U.S. coastline. The most destructive tsunamis have occurred along the coasts of California, Oregon, Washington, Alaska, and Hawaii. Earthquake-induced movement of the ocean floor most often generates tsunamis. If a major earthquake or landslide occurs close to shore, the first wave in a series could reach the beach in a few minutes, even before a warning is issued. Areas are at greater risk if they are less than 25 feet above sea level and within a mile of the shoreline. Drowning is the most common cause of death associated with a tsunami. Tsunami waves and the receding water are very destructive to structures in the run-up zone. Other hazards include flooding, contamination of drinking water, and fires from gas lines or ruptured tanks.

What to Do Before and During a Tsunami

The following are guidelines for what you should do if a tsunami is likely in your area:

1. Turn on your radio to learn if there is a tsunami warning.
2. If an earthquake occurs and you are in a coastal area move inland to higher ground immediately and stay there.
3. Stay away from the beach. Never go down to the beach to watch a tsunami come in. If you can see the wave you are too close to escape it.

CAUTION - If there is noticeable recession in water away from the shoreline this is nature's tsunami warning and it should be heeded. You should move away immediately.

What to Do After a Tsunami

The following are guidelines for the period following a tsunami:

1. Stay away from flooded and damaged areas until officials say it is safe to return.
2. Stay away from debris in the water; it may pose a safety hazard to boats and people. Save yourself - not your possessions

See <http://www.ready.gov/tsunamis> for more information.