Undertstanding Flooding

When flooding occurs, one question is always in the forefront: why did it flood? Unfortunately, there is not one simple answer. Four different types of floodplains (valley, major river, shallow, coastal), each with its own characteristics, are illustrated in the first four diagrams below. The last diagram (ponding/overland) illustrates the type of flooding caused by intense rainfall where no identifiable floodplain exists.

Some factors that aggravate flooding include:

- Changes to developed and undeveloped land
- Changes to rivers or streams
- Erosion
- Poor channel maintenance

Through wise floodplain management, communities can protect their citizens against much of the devastating financial loss and emotional toll caused by flood disasters. Residents and business owners are encouraged to purchase floodproofing or taking other protective measures to address flood risks to their own properties.

Types of floodplains

1. Valley
   - Shallow: The type of flooding that occurs when a creek overflows its banks due to intense rainfall.
   - Ground in this type of area is more "defined," with creek valleys. Flooding can be very deep and usually extends for a few days.

2. Major River
   - Shallow: The floodplain along major rivers can be large, deep, and swift, and flooding conditions may last a week or more.

3. Shallow
   - Shallow floodplains affect thousands of residences and businesses. When the channel capacity is exceeded, flooding begins. This flooding usually lasts hours, rather than days.

Coastal flooding occurs when storm events coincide with unusually high tides or a hurricane surge floods low-lying areas. High water levels are usually accompanied by waves capable of causing significant structural damage.

This type of flooding is not restricted to any one area of the U.S. or to any one area of a community. It can occur almost ANYWHERE. When intense local rainfall exceeds storm sewer or roadside ditch capacity, the water can "pond" in the streets deep enough to flood residences that are not even near a creek or bayou. The water will seek a path to the channel by flowing overland (sheet flow).

For more information on floodplain management, please visit the "Floodplain Management" page on the FEMA website at www.fema.gov/plan/prevent/floodplain/index.shtm.
WHAT IS THE NATIONAL FLOOD INSURANCE PROGRAM?
Congress created the National Flood Insurance Program (NFIP) in 1968 as an alternative to taxpayer-funded disaster relief for flood victims. Administered by the Department of Homeland Security, Federal Emergency Management Agency (FEMA), the NFIP enables property owners and renters in participating communities to purchase flood insurance as a financial protection against flood losses. In exchange, States and communities adopt floodplain management regulations designed to reduce flood risks and future flood damage.

FREQUENTLY ASKED QUESTIONS
Who can purchase flood insurance?
NFIP flood insurance is available to homeowners, business owners, condominium owners and associations, as well as tenants of eligible buildings located in NFIP participating communities.

Where can I purchase flood insurance?
Any licensed casualty insurance agent in your State can sell you an NFIP policy. Call 1-888-225-5356 for more information.

What should I do now?
Every property is at some risk of flooding, even properties that are not located near a known flooding source such as a river or lake. To find out more about your flood risk, visit www.floodsmart.gov. For a more detailed analysis of your risk, use FEMA’s National Flood Hazard Layer (NFHL), which is a tool that provides FEMA flood hazard data that can be “layered” over such software applications as Google Earth™. For detailed instructions on using the NFHL in Google Earth visit www.fema.gov/library/viewRecord.do?id=5289.

As a property owner or renter, you should learn the flood risk for your residence or building by reviewing the NFIP flood map for your community. Copies of the flood map are available in either draft (preliminary) or final (effective) form at the Community Map Repository. Most importantly, FIRMs are used for determining where flood insurance must be purchased and how much that insurance will cost based on the flood risk. Federally regulated or insured lenders are obligated to require flood insurance to secure loans for all structures located in high-risk areas shown on the FIRM. Through the NFIP, property owners and renters in participating communities are able to insure themselves against flood losses.

How to obtain a flood map
You can view an effective NFIP flood map for your community on the FEMA Map Service Center (MSC) website: http://msc.fema.gov. You can also order a copy of the effective flood map for your community through the MSC website or call the FEMA Map Information eXchange (FMIX) toll free, at 1-877-FEMA MAP (1-877-336-2627). The address of the local Community Map Repository, which is usually maintained by your local floodplain administrator at the planning and zoning office.

Why should I purchase flood insurance?
Homeowners and rental insurance does not cover flood damages and floods may occur even in areas designated as moderate or minimal risk. Approximately 25 percent of all flood insurance claims occur in these areas. FEMA encourages you to maintain flood insurance coverage, even if you are not required to do so by law. You may be eligible to pay much less for flood insurance coverage if the property is located in an area designated as moderate- or minimal-risk.

For more information, including pricing options, contact your insurance agent.

WHAT ROLE DOES THE FLOOD INSURANCE RATE MAP PLAY IN THE FLOOD INSURANCE PROGRAM?
As the Federal agency responsible for administering the NFIP, FEMA identifies flood hazards, assesses flood risks, and provides appropriate flood hazard and risk information to communities nationwide. This information is provided to communities in the form of maps, known as Flood Insurance Rate Maps (FIRMs).

FIRMs are used an estimated 30 million times annually for:

• Calculating flood insurance premiums
• Determining whether property owners are required by law to obtain flood insurance as a condition of obtaining federal loans from federally-backed lending institutions or other federally-backed financial assistance
• FIRMs are also used by States and communities for emergency management, land-use and water resource planning, and by Federal agencies implementing Executive Order 1988 for Floodplain Management.
• Most importantly, FIRMs are used for determining where flood insurance must be purchased and how much that insurance will cost based on the flood risk. Federally regulated or insured lenders are obligated to require flood insurance to secure loans for all structures located in high-risk areas shown on the FIRM. Through the NFIP, property owners and renters in participating communities are able to insure themselves against flood losses.

The NFIP is a public safety program implemented at the local level
A FIRM can help property owners determine how high to elevate the home in order to be protected from the next flood event. FIRMs reflect the results of engineering studies, known as Flood Insurance Studies (FIS), which include examinations of historical flood records, topographic surveys, and other data, to establish base flood elevations. The base flood is the flood that has a 1-percent chance of occurrence in any given year. Along rivers, streams, and lakes, these elevations indicate the level at which flooding is expected to occur during the 1-percent annual-chance flood event. Along the coast, these elevations are the result of the analysis of storm surge, wind direction and speed, wave heights, and other factors. FEMA is updating and modernizing existing FIRMs for most of the United States. The components of these modernized maps, called Digital Flood Insurance Rate Maps (DFIRMs), are shown below.

How do I change the Flood Map?
FEMA exercises great care to ensure that the analytical methods used for its engineering studies are scientifically and technically correct. FEMA also uses the best available technologies to ensure that the maps depict accurate flood risks.

FEMA Map Information eXchange (FMIX) toll free, at 1-877-FEMA MAP (1-877-336-2627) or by visiting www.floodsmart.gov. FEMA also has established procedures for property owners who believe they have been incorrectly included in a high-risk area, known as a Special Flood Hazard Area (SFHA), on the flood insurance rate map (FIRM).

HOW DO I CHANGE THE FLOOD MAP?
Property owners interested in having FEMA examine the SFHA designation for their property can submit technical data and supporting documentation to FEMA in support of a map change, also known as a map amendment. If the documentation supports a map amendment, FEMA will issue a formal decision in the form of a Letter of Map Amendment (LOMA), removing the SFHA designation from the property. The LOMA will amend the currently effective flood map, thereby removing the Federal mandatory flood insurance purchase requirement. Lenders, however, may still opt to require flood insurance as a condition of any mortgage. Even if the SFHA designation has been removed from a property, flooding can still occur, so maintaining flood insurance is highly recommended. As a result of a LOMA, the property owner may be eligible for a lower-cost policy, referred to as a Preferred Risk Policy (PRP). FEMA has a similar process for properties that have been elevated by the placement of earthen fill. The document issued by FEMA for these cases is called a Letter of Map Revision Based on Fill (LOMFR-F). In making amendments and revisions, FEMA adheres to the same engineering standards applied in the preparation of the effective FIRM and related products. The supporting data and documentation required for LOMA and LOMFR-F requests and other types of map revision requests are necessary to ensure that flood hazard and risk information for a community is scientifically and technically correct. Additional information about map changes, including the current fee schedule for map change requests, is available by calling the FEMA Map Information eXchange (FMIX) toll free, at 1-877-FEMA MAP (1-877-336-2627) or by visiting http://www.floodmaps.fema.gov/fm/fms_main.html.