

## HOW CAN I REVIEW A FLOOD MAP THAT IS BEING UPDATED?

After an engineering study has been completed, FEMA will provide preliminary versions of the updated map panels and the accompanying Flood Insurance Study report to community officials for review and comment and hold public meetings to present the results of the engineering studies. If new or modified base flood elevations or base flood depths are proposed, FEMA will initiate a statutorily required 90-day appeal period.

The 90-day appeal period begins on the date of the second publication of proposed base flood elevations in the local newspaper. During the appeal period, any owner or renter of real property affected by the proposed elevations within the community may file a written appeal based on a demonstration that the elevations proposed by FEMA are scientifically or technically incorrect.

To determine whether a map update is in progress in your community or to view the preliminary version of the map and report, please contact your local floodplain administrator or visit your Community Map Repository. For assistance in locating the Community Map Repository, please call the FEMA Map Information eXchange (FMIX) at the number shown below.

After community and public reviews have been completed and appeals have been addressed, FEMA publishes final versions of the map and report. Once published the community has 6 months to legally adopt the final map. The new map and report are available for review through the FEMA Flood Map Service Center at <http://msc.fema.gov>.



If you would like a FEMA Map Specialist to assist you with requesting a change to the Flood Insurance Rate Map for your community, please call the FMIX toll free, at 1-877-FEMA MAP (1-877-336-2627).

## FOR MORE INFORMATION

- For more information on the NFIP, please read "Answers to Questions About the NFIP," found on the FEMA website at [www.fema.gov/media-library/assets/documents/272?id=1404](http://www.fema.gov/media-library/assets/documents/272?id=1404) or may be ordered by calling 1-800-480-2520.
- For more information on flood insurance, including information on the Preferred Risk Policy, please visit [www.floodsmart.gov](http://www.floodsmart.gov) or the "NFIP Publications" page at [www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-publications](http://www.fema.gov/national-flood-insurance-program/national-flood-insurance-program-publications).
- For more information on flood hazard mapping products and processes, including tutorials on map change request procedures, please visit the "Flood Hazard Mapping" page at [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping](http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping).
- For more information on floodplain management, please visit the "Floodplain Management" page on the FEMA website at [www.fema.gov/national-flood-insurance-program](http://www.fema.gov/national-flood-insurance-program).
- There are many resources in the FEMA Resource & Document management system at: [www.fema.gov/resource-document-library](http://www.fema.gov/resource-document-library).

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## UNDERSTANDING 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 ponding diagram below shows 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
- Erosion
- Changes to rivers or streams
- 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 and maintain flood insurance policies and to consider flood-proofing or taking other protective measures to address flood risks to their own properties.

## TYPES OF FLOODING



The ground in this type of area is more "defined," with creek valleys. Flooding can be very deep and usually extends for a few days.



The floodplain along major rivers can be large, deep, and swift, and flooding conditions may last a week or more.



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 tides, tsunamis, or a hurricane surge flood. 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).



Levees are designed to protect against a certain level of flooding. However, levees can also be overtopped, or even fail during large floods. No levee provides full protection from flooding - even the best structure cannot

completely eliminate all flood hazards.

[www.FloodSmart.gov](http://www.FloodSmart.gov)

An official site of the National Flood Insurance Program



# MAPPING FLOOD RISKS

## An Overview to Floodplain Management & Flood Insurance

FEMA L-257 / April 2014



During a 30-year mortgage, property owners located in high-risk flood zones have a 26% chance of experiencing flood damage, compared to a 9% chance\* of experiencing a structural fire.

Homeowners insurance does not cover flood damage.



FEMA

\* Probability based on yearly reported structural fire data from the National Fire Protection Association.

[www.fema.gov](http://www.fema.gov)

## WHY MAP FLOODPLAINS?

Mapping floodplains is vital for implementing all floodplain management strategies. It creates broad-based awareness of flood risk; provides the data necessary for floodplain management and land-use regulations, hazard mitigation programs, and rating flood insurance for new construction on an actuarial basis; and supports the decision making process with respect to the natural values of floodplains.



## 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 survivors. 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.

### Why should I purchase flood insurance?

Homeowners or 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. The Federal Emergency Management Agency (FEMA) encourages you to maintain flood insurance coverage, even if you are not required to do so by the lender. 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.

## LEVEE FLOOD RISK

There are currently thousands of miles of levees across the country providing some level of protection for millions of people, so it is important for individuals to understand the risks associated with living behind levees. No levee provides full protection from flooding - even the best structure cannot completely eliminate all flood risks. But there are constant efforts being made by a variety of organizations to reduce that risk and keep levees operating efficiently. For more information: [www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/levees.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/levees.jsp)

# 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:**

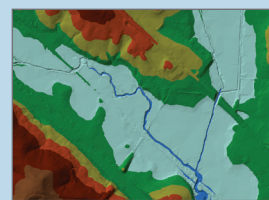
- Enforcing State and community floodplain management regulations.
- Calculating flood insurance premiums.
- Determining whether property owners are required by law to obtain flood insurance as a condition of obtaining loans from federally-backed lending institutions or other federally-based financial 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 11988 for Floodplain Management.

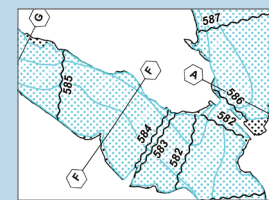
Most importantly, FIRMs are used for determining where flood insurance must be purchased and how much that insurance will cost based on the flood risk. Federally regulated or insured lenders are obligated to require flood insurance to secure loans for all structures located in high-risk areas, as shown on the FIRM.



Base Map Data



Topographical Data



Flood Data



Final Composed FIRM

### How to obtain a flood map

Every property is at some risk of flooding, even those not located near a known flooding source such as a river, ocean, or lake. To find out more about your flood risk, visit [www.floodsmart.gov](http://www.floodsmart.gov). For a more detailed analysis of your risk, use FEMA's National Flood Hazard Layer (NFHL) tool, which provides FEMA flood hazard data that can be "layered" over such software applications as Google Earth™. For instructions on using the NFHL in Google Earth visit [www.fema.gov/media-library/assets/documents/13446?id=3289](http://www.fema.gov/media-library/assets/documents/13446?id=3289).

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 to view in either draft (preliminary) or final (effective) form at the Community Map Repository, which is usually maintained by your local floodplain administrator at the planning and zoning office. You can view an effective digital flood map for your community on the FEMA Map Service Center (MSC) website: <https://msc.fema.gov>.

If further assistance is needed, the MSC or FEMA Map Information eXchange (FMIX) can be called toll free at **1-877-FEMA MAP (1-877-336-2627)**. Flood Insurance Study (FIS) reports, FIRM spatial databases, and related products can be downloaded from the MSC website. A section of a particular flood map known as a FIRMette can be created on the MSC website by selecting a desired area from the online image of a particular flood map. A FIRMette is free and available for many aspects of the NFIP including floodplain management, flood insurance, and the enforcement of mandatory flood insurance purchase requirements.

In addition to calling FMIX, you can e-mail [FEMAMapSpecialist@riskmapcds.com](mailto:FEMAMapSpecialist@riskmapcds.com) or submitting a request in writing to the **Federal Emergency Management Agency, Map Service Center, P.O. Box 3617, Oakton, Virginia 22124-9617**.

Through the NFIP, property owners and renters in participating communities are able to insure themselves against flood losses.

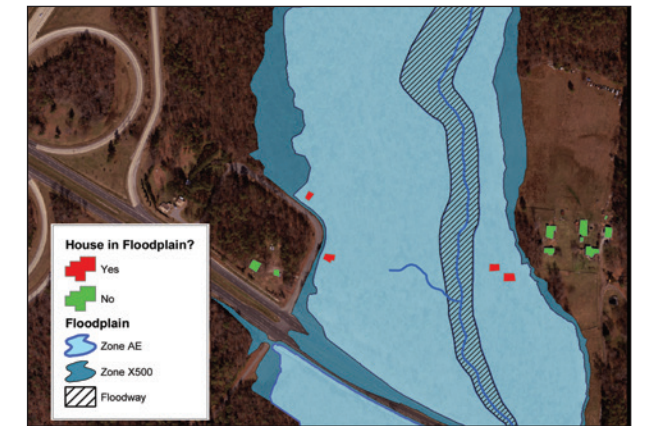
### The NFIP is a public safety program implemented at the local level

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. In many cases the FIS will 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 are shown below.

By employing wise floodplain management, NFIP communities can help protect citizens from future flood disasters. Managing development in floodplains results in construction practices that can reduce future flood losses and high costs associated with flood disasters thereby easing the emotional toll experienced by citizens when their personal property is damaged by flood waters.

## 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.



Sample of Digital Flood Hazard Data

Even so, FEMA recognizes that changes to flood maps might be necessary. Therefore, FEMA 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).



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 can be used to work with a lender to remove the Federal mandatory flood insurance purchase requirement and to work with the flood insurance agent to bring down the premium cost. 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 (LOMR-F).

In making amendments and revisions, FEMA adheres to the same engineering standards applied in the preparation of the effective FIRM and related products.

FEMA has added new capabilities to its convenient web application tool, the Online LOMC, to easily request a Letter of Map Amendment. [www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/change-flood-zone-designation-online-letter](http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping/change-flood-zone-designation-online-letter).

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 [www.fema.gov/forms-documents-and-software/flood-map-related-fees#2](http://www.fema.gov/forms-documents-and-software/flood-map-related-fees#2).