



# FEMA

## Frequently Asked Questions

### *Engineers, Surveyors, and Architects*

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### **1. How do I determine a Base Flood Elevation (BFE) for an approximate Zone A area?**

Methods for estimating or developing BFE data in Special Flood Hazard Areas (SFHAs) determined by approximate-study methods are described in a FEMA guidance document entitled *The Zone A Manual: Managing Floodplain Development in Approximate Zone A Areas*. You may also download the QUICK-2 software that accompanies the document. QUICK-2, Version 2.0, is the latest version of a hydraulic analysis program used to compute water-surface elevations in open channels of all types. If you would prefer to have a paper copy of the document and a disk of the QUICK-2 software, you may place an order by calling the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627).

### **2. Where can I obtain the backup or supporting data for a Flood Insurance Study (FIS)?**

The backup and supporting data used to develop the currently effective FIS report and Flood Insurance Rate Map are available from the FEMA Project Library. Unless you are exempt from paying such fees, a fee is charged for most requests. All requests for FIS backup data must be made in writing and should be sent to the following address for processing:

**FEMA Project Library**  
 847 S. Pickett Street  
 Alexandria, VA 22304

Phone: 1-877- 336-2627

Facsimile: 1-703- 212-4090

### **3. What are the FEMA requirements for removing a structure from the Special Flood Hazard Area (SFHA)?**

To be removed from the SFHA shown on the Flood Insurance Rate Map (FIRM), a structure must be on land that is not subject to flooding by the base (1-percent-annual-chance) flood.

If a structure is located on natural ground that is higher than the Base (1-percent-annual-chance) Flood Elevation (BFE) shown on the FIRM, then a Letter of Map Amendment (LOMA) should be requested. In support of the request, a surveyor must determine the elevation of the lowest ground next to the structure. If the ground is higher than the BFE, then FEMA will issue a LOMA to remove the structure from the SFHA. Information on the data submittal requirements for a LOMA is provided in the MT-EZ and MT-1 application forms packages.

If the structure was built on fill that was placed after the FIRM was prepared, a Letter of Map Revision Based on Fill (LOMR-F) should be requested. If the filled ground is higher than the BFE, then FEMA may issue a LOMR-F to remove the structure from the SFHA. Information on the data submittal requirements for a LOMR-F is provided in the MT-1 application forms package.

A signed community acknowledgement of fill placement form is required and provides written assurance by the participating community that they have complied with the appropriate minimum floodplain management requirements {any existing or proposed structures within the area to be removed from the SFHA are (or will be) reasonably safe from flooding as required under the current minimum floodplain management regulations} under Subparagraph 60.3(a)(3) of the National Flood Insurance Program (NFIP) regulations. Subparagraph 60.3(a)(3) and other portions of the NFIP regulations may be accessed through the Guidance Documents and Other Published Resources page on the FEMA Website.

Section A pertains to requests involving the placement of fill and must be signed by a community official responsible for floodplain management to certify the request meets all applicable NFIP regulations.

Section B is required for all requests involving inadvertent inclusions in the regulatory floodway and must be signed by a community official responsible for floodplain management to acknowledge the community's acceptance of a revision to the regulatory floodway within the community.

### **4. When should I request a revision to a Flood Insurance Rate Map (FIRM)?**

If physical changes to the floodplain have changed the flood hazard information shown on the effective FIRM, a revision must be requested. As soon as practicable, but not later than six months after the date such information becomes available, a community must notify FEMA of the changes by submitting technical or scientific data in accordance with 44 CFR 65.3. The request must be accompanied by the appropriate portions of the MT-2 application forms package, titled *Revisions to National Flood Insurance Program Maps* (FEMA Form 81-89 Series), and the required supporting information.

### **5. When should a Conditional Map Revision be requested?**

FEMA's review and comment on a project that is proposed within the Special Flood Hazard Area is referred to as a Conditional Letter of Map Revision (CLOMR). A CLOMR provides FEMA's comments on whether the proposed

project meets the minimum floodplain management criteria of the National Flood Insurance Program (NFIP) and, if so, what revisions will be made to the effective NFIP map for a community if the project is completed as proposed.

NFIP regulations require a CLOMR to be obtained from FEMA before a project can be built in two situations. The first situation is for a project on a stream or river that has been studied using detailed hydrologic and hydraulic analyses and for which Base (1-percent-annual-chance) Flood Elevations (BFEs) have been specified, but a regulatory floodway has not been designated. If the community proposes to allow development that would result in more than a 1.0-foot increase in the BFE, a CLOMR must first be obtained from FEMA.

The second situation requiring a CLOMR is for a project on a stream or river for which detailed analyses have been conducted and both BFEs and a regulatory floodway have been designated. If the community proposes to allow development totally or partially within the regulatory floodway that would result in any (greater than 0.0 foot) increase in the BFE, a CLOMR must be obtained.

Although the two situations described above are the only ones where the NFIP regulations require a CLOMR prior to permitting development, FEMA will review and comment and, if appropriate, issue a CLOMR for any proposed project when requested by an NFIP participating community. All requests for CLOMRs must be supported by detailed flood hazard analyses prepared by a qualified Registered Professional Engineer. The specific data and documentation requirements are contained in Part 65 of the NFIP regulations and in the FEMA MT-2 application forms package. To defray costs to NFIP policyholders, FEMA charges fees to recover review costs. Specific information on the fee schedule and exemption requirements is contained in the MT-2 forms package.

## **6. Who can prepare an Elevation Certificate?**

Elevation Certificates must be prepared and certified by a Licensed Land Surveyor, Registered Professional Engineer, or architect who is authorized by Commonwealth, State, or local law to certify elevation information. Community officials who are authorized by local law or ordinance to provide floodplain management information may also sign the certificate. Elevations must be certified by a Registered Professional Engineer or Licensed Land Surveyor if the Elevation Certificate is intended to support an application for a Letter of Map Amendment or a Letter of Map Revision Based on Fill.

## **7. How do I determine whether a hydrologic and hydraulic model is accepted for use by the National Flood Insurance Program (NFIP)?**

The Numerical Models Meeting the Minimum Requirements of the NFIP page contains information about computer models that are accepted by NFIP regulations. The information includes current lists of acceptable models, which have been separated into nationally and locally accepted categories; supporting technical documentation acceptable models; and a list of numerical models that FEMA no longer accepts for NFIP usage.

For further information on these regulations, and to learn how to get a model added to this list, please refer to the following:

- Policy for Accepting Numerical Models for Use in the NFIP
- Conditional Permission to Disclose Source Codes and Users Manual
- Clarification of NFIP Criteria for Certification of Coastal, Hydrologic, and Hydraulic Models

FEMA has developed several software programs to support the NFIP. Additional information, including tutorials, user's manuals and guidance documentation, additional guidance, and sample data sets are available for certain programs. **Visit this page often to keep up with the available software resources provided by FEMA.**

## **8. Where can I view or obtain a copy of a Flood Insurance Rate Map (FIRM) or Flood Insurance Study (FIS) report?**

You may research, view at no charge, and purchase the available inventory of FIRMs, FIS reports, and other National Flood Insurance Program (NFIP) products through FEMA's Map Service Center.

You may order copies of the effective FIRM, FIS report, and other NFIP products, receive information about available products, ordering instructions, and cost information by contacting the FEMA Map Service Center, toll free, at 1-877-FEMA MAP (1-877-336-2627).

You may view copies of the effective FIRM and FIS report for any community participating in the NFIP at the Community Map Repository, which is usually maintained by the community floodplain administrator or officials at the planning and zoning office.

## **9. Why are temporary benchmarks included on some Flood Insurance Rate Maps (FIRMs) and not on others?**

When completing detailed engineering studies, FEMA, or its mapping partners, establishes temporary benchmarks, also called elevation reference marks in the vicinity of the floodplain to aid in data collection. Upon publication of the studies, FEMA initially chose to include such information on the FIRMs and within the Flood Insurance Study report. However, FEMA and, in some instances, the community do not actively maintain these temporary benchmarks. Because it cannot be guaranteed that the benchmarks have remained undisturbed, FEMA elects not to include such benchmark information on subsequent FIRM revisions. If you have difficulty locating a specific benchmark, it is suggested that you contact the community for an inventory of active benchmarks or the National Geodetic Survey at 301-713-3242 for an inventory of federally maintained benchmarks.

## **10. How do I find out when a Flood Insurance Rate Map (FIRM) was last updated?**

The National Flood Insurance Program's Community Status Book provides a quick and easy way to see the last effective date for a community's FIRM. However, it does not provide the date of every FIRM panel. Additional information may be obtained by contacting the community's floodplain administrator or building and permit office, or by contacting the FEMA Map Information eXchange, toll free, at 1-877-FEMA MAP (1-877-336-2627).

## **11. I plan to request a map update or revision. What are my options and where can I obtain more information?**

There are three primary methods by which a community's flood hazard maps are updated. The first is through a FEMA-initiated study/mapping project and subsequent revision of the effective National Flood Insurance Program (NFIP) flood maps. The second method is through a community-initiated revision under Part 65 of the NFIP regulations. The third is through a study/mapping project undertaken by a participant in the FEMA Cooperating

Technical Partners (CTP) Program. For more information on each of these methods, please visit Flood Map Revision Processes.

## 12. What are the different types of Letters of Map Change (LOMCs)?

The different types of LOMCs are listed in the table below.

TYPE	DESCRIPTION
<b>CLOMA</b>	A Conditional Letter of Map Amendment (CLOMA) is FEMA's comment on whether a proposed project would be excluded from the Special Flood Hazard Area (SFHA) shown on the effective National Flood Insurance Program (NFIP) map. The letter becomes effective on the date sent. This letter does not revise an effective NFIP map, but indicates whether the project, if built as proposed, would or would not be removed from the SFHA by FEMA if later submitted as a request for a Letter of Map Amendment (LOMA).
<b>CLOMR</b>	A Conditional Letter of Map Revision (CLOMR) is FEMA's comment on a proposed project that would affect the hydrologic and/or hydraulic characteristics of a flooding source and thus result in the modification of the existing regulatory floodway or effective Base Flood Elevations (BFE). There is no appeal period. The letter becomes effective on the date sent. This letter does not revise an effective NFIP map, it indicates whether the project, if built as proposed, would or would not be removed from the Special Flood Hazard Area (SFHA) by FEMA if later submitted as a request for a Letter of Map Revision (LOMR).
<b>CLOMR-F</b>	A Conditional Letter of Map Revision Based on Fill (CLOMR-F) is FEMA's comment on whether a proposed project involving the placement of fill would exclude an area from the SFHA shown on the NFIP map. The letter becomes effective on the date sent. This letter does not revise an effective NFIP map, but indicates whether the project, if built as proposed, would or would not be removed from the SFHA by FEMA if later submitted as a request for a Letter of Map Revision Based on Fill (LOMR-F).
<b>LOMA</b>	A Letter of Map Amendment (LOMA) is an official amendment, by letter, to an effective NFIP map. A LOMA establishes a property's location in relation to the SFHA. The letter becomes effective on the date sent.
<b>LOMR</b>	A Letter of Map Revision (LOMR) is an official revision, by letter, to an effective NFIP map. A LOMR may change flood insurance risk zones, floodplain and/or floodway boundary delineations, planimetric features, and/or BFE. The letter becomes effective on the date sent.
<b>LOMR-F</b>	A Letter of Map Revision Based on Fill (LOMR-F) is an official revision, by letter, to an effective NFIP map. A LOMR-F provides FEMA's determination concerning whether a structure or parcel has been elevated on fill above the BFE and excluded from the SFHA. The letter becomes effective on the date sent.

## 13. What are the different flood insurance risk zone designations and what do they mean?

The zone designations shown on the Flood Insurance Rate Maps are defined below.

### Zone A

Zone A is the flood insurance rate zone used for 1-percent-annual-chance (base flood) floodplains that are determined for the Flood Insurance Study (FIS) by approximate methods of analysis. Because detailed hydraulic analyses are not performed for such areas, no Base Flood Elevations (BFEs) or depths are shown in this zone. Mandatory flood insurance purchase requirements apply.

### Zone AE and A1-A30

Zones AE and A1-A30 are the flood insurance rate zones used for the 1-percent-annual-chance floodplains that are determined for the FIS by detailed methods of analysis. In most instances, BFEs derived from the detailed hydraulic analyses are shown at selected intervals in this zone. Mandatory flood insurance purchase requirements apply. AE zones are areas of inundation by the 1-percent-annual-chance flood, including areas with the 2-percent wave runup, elevation less than 3.0 feet above the ground, and areas with wave heights less than 3.0 feet. These areas are subdivided into elevation zones with BFEs assigned. The AE zone will generally extend inland to the limit of the 1-percent-annual-chance Stillwater Flood Level (SWEL).

**Zone AH**

Zone AH is the flood insurance rate zone used for areas of 1-percent-annual-chance shallow flooding with a constant water-surface elevation (usually areas of ponding) where average depths are between 1 and 3 feet. BFEs derived from detailed hydraulic analyses are shown at selected intervals within this zone. Mandatory flood insurance purchase requirements apply.

**Zone AO**

AO zones are areas of sheet-flow shallow flooding where the potential runup is less than 3.0 feet above an overtopped barrier crest ( $\Delta R < 3.0$  feet). The sheet flow in these areas will either flow into another flooding source (AE zone), result in ponding (AH zone), or deteriorate because of ground friction and energy losses and merge into the X zone. AO areas are designated with 1-, 2-, or 3-foot depths of flooding.

**Zone AR**

Zone AR is the flood insurance rate zone used for areas protected by flood-control structures, such as levees, that are being restored. FEMA will consider using the Zone AR designation if the flood protection system has been deemed restorable by a Federal agency in consultation with a local project sponsor; a minimum level of flood protection is still provided to the community by the system; and restoration of the flood protection system is scheduled to begin within a designated time period and in accordance with a progress plan negotiated between the community and FEMA. Mandatory purchase requirements for flood insurance apply in Zone AR, but the rate will not exceed that of an unnumbered Zone A, if the structure is built in compliance with Zone AR floodplain management regulations.

For floodplain management in Zone AR areas, the property owner is not required to elevate existing structures when making improvements. However, new structures must be elevated (or floodproofed for nonresidential structures) so that the lowest floor, including the basement, is at least 3 feet above the highest adjacent existing grade, if the BFE does not exceed 5 feet at the proposed development site. For infill sites, rehabilitation of existing structures, or redevelopment of previously developed areas, there is a 3-foot elevation requirement regardless of the depth of the BFE at the project site.

The Zone AR designation will be removed and the restored flood-control system will be shown as providing protection from the base flood on the National Flood Insurance Program (NFIP) map when the restoration project is complete and all the necessary data have been submitted to FEMA.

**Zone A99**

Zone A99 is the flood insurance rate zone used for areas within the 1-percent-annual-chance floodplain that will be protected by a Federal flood-protection system, where construction has reached specified statutory milestones. No BFEs or depths are shown in this zone. Mandatory flood insurance purchase requirements apply.

**Zone D**

The Zone D designation is used for areas where there are possible but undetermined flood hazards. In areas designated as Zone D, no analysis of flood hazards has been conducted. Flood insurance is optional and available, and the flood insurance rates for properties in Zone D are commensurate with the uncertainty of the flood risk.

**Zone V and V1 - 30**

Zone V and V1 - 30 designation is for coastal areas with a 1-percent or greater chance of flooding and an additional velocity hazard associated with storm waves (wave action). Because detailed hydraulic analyses are not performed for such areas, no BFEs or depths are shown in this zone. Mandatory flood insurance purchase requirements apply.

**Zone VE**

VE zones are coastal high hazard areas where wave action and/or high-velocity water can cause structural damage

during the base flood. They are subdivided into elevation zones with BFEs assigned. VE zones are identified using one or more of the following criteria for the base flood conditions:

1. The **wave runup zone** occurs where the (eroded) ground profile is 3.0 feet or more below the 2-percent wave runup elevation
2. The **wave overtopping splash zone** is the area landward of the crest of an overtopped barrier, in cases where the potential 2-percent wave runup exceeds the barrier crest elevation by 3.0 feet or more ( $\Delta R > 3.0$  feet). (See Subsection D.2.8.2.)
3. The **breaking wave height zone** occurs where 3-foot or greater wave heights could occur (this is the area where the wave crest profile is 2.1 feet or more above the total stillwater level).
4. The **primary frontal dune zone**, as defined in 44 CFR Section 59.1 of the NFIP regulations.

For the Pacific Coast only:

5. The **high-velocity flow zone** is landward of the overtopping splash zone (or area on a sloping beach or other shore type), where the product of depth of flow times the flood velocity squared ( $hv^2$ ) is greater than or equal to 200 ft<sup>3</sup>/sec<sup>2</sup>.

#### **Zone B and X (shaded)**

Zones B and X (shaded) are areas of 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance (base flood) sheet flow flooding with average depths of less than 1 foot, areas of base flood stream flooding with a contributing drainage area of less than 1 square mile, or areas protected from the base flood by levees. No BFEs or depths are shown in this zone, and insurance purchase is not required

#### **Zones C and X (unshaded)**

Zones C and X (unshaded) are flood insurance rate zones used for areas outside the 0.2-percent-annual-chance floodplain. No BFEs or depths are shown in this zone, and insurance purchase is not required.

### **14. What is the base, or 1-percent-annual-chance, flood?**

The base flood is the flood that has a 1-percent chance of being equaled or exceeded each year. Thus, the base flood could occur more than once in a relatively short period of time. The base flood, which is the standard used by most Federal and State agencies, is used by the National Flood Insurance Program (NFIP) as the standard for floodplain management and to determine the need for flood insurance. The base flood standard was adopted by the NFIP after consideration of various alternatives. The standard constitutes a reasonable compromise between the need for building restrictions to minimize potential loss of life and property and the economic benefits to be derived from floodplain development.

### **15. What is the Base Flood Elevation?**

The Base Flood Elevation, or BFE, is the height of the base (1-percent-annual-chance) flood, usually in feet, in relation to the National Geodetic Vertical Datum of 1929, the North American Vertical Datum of 1988, or other datum referenced in the Flood Insurance Study report, or average depth of the base flood, usually in feet, above the ground surface. The BFE was adopted by the National Flood Insurance Program as the basis for floodplain management and flood insurance regulations.

**16. Which elevation datum should I use?**

Flood Insurance Rate Maps (FIRMs) reference the vertical datum used to compute flood elevations. In completing Elevation Certificates, which are used to determine the proper flood insurance premium rate, and/or to support a request for a Letter of Map Amendment or Letter of Map Revision Based on Fill, the same vertical datum as that shown on the FIRM must be used to compute lot and/or structure elevations and to compute flood elevations that are not given on the FIRM.

**17. How long does it take to obtain a Letter of Map Amendment (LOMA) or a Letter of Map Revision Based on Fill (LOMR-F)?**

Upon the receipt of all required data to support a LOMA or LOMR-F, FEMA issues a determination within 60 days. Upon the receipt of all required data to support a Letter of Map Revision, FEMA issues a determination within 90 days.