

HANDBOOK FOR ARIZONA COMMUNITIES
On Floodplain Management and the National Flood
Insurance Program

APPENDIX G

FIA - 12/December 1993
Supersedes FIA - 12/January 1990

**FEDERAL EMERGENCY MANAGEMENT AGENCY
FEDERAL INSURANCE ADMINISTRATION**

**Appeals, Revisions, and Amendments
to National Flood Insurance Program Maps**

**A GUIDE
FOR COMMUNITY OFFICIALS**

December 1993

Preface

The Federal Emergency Management Agency (FEMA), as the agency responsible for administration of the National Flood Insurance Program (NFIP), conducts hydrologic and hydraulic analyses to determine the magnitude of the flood risk in communities throughout the United States. Those analyses, performed under FEMA guidelines by private engineering firms and Federal and State agencies, are based on standard engineering practices and yield the flood risk information (including base (100-year) flood elevations, flood risk zones, and floodplain and floodway boundary delineations) shown on NFIP maps.

Of the estimated 22,000 identified floodprone communities nationwide, over 18,000 communities now participate voluntarily in the NFIP. Using the flood risk information presented on NFIP maps, these participating communities design and adopt floodplain management measures aimed at reducing future flood losses. In exchange, FEMA makes actuarially based flood insurance available to the millions of property owners in those communities.

We recognize that NFIP maps require changes from time to time as a result of anticipated development in previously unstudied areas, floodplain and watershed changes, flood control or mitigation efforts, or improvements in the techniques used for assessing flood risk. Citizens and local governments play an important role in keeping NFIP maps technically sound and up to date as conditions change in their communities.

This Guide provides basic information about the technical standards to be applied and the administrative procedures to be followed by local officials and others who request changes to NFIP maps. This Guide is intended not only to discuss those standards and procedures, but to help community officials understand how they can be most effective in maintaining the accuracy of the flood risk information.

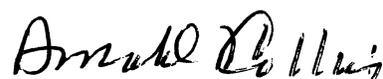
The Guide is designed for readers who do not require refined technical or legal explanations, but do need a basic understanding of the processes by which NFIP maps may be changed.

Therefore, we have minimized the use of technical terms in this Guide, and the information presented is not intended to serve as legal definitions.

Readers who need additional technical information may obtain copies of the newly developed application/certification forms described in Chapters 5 through 9 and listed in Appendix B of this Guide. For information about legal requirements, readers should refer to Title 44, Chapter I, Parts 59-77 of the Code of Federal Regulations (44 CFR, 59-77). Parts 65, 67, 70, and 72 apply specifically to the map change processes described in this Guide. In the event of any conflict between the information presented herein and that set forth in the NFIP regulations at 44 CFR, 59-77, the regulations take precedence.

Since the first publication of this Guide in September 1985, over 20,000 copies have been printed and distributed to community officials and other interested parties. The information presented in the Guide has proven effective in enabling those who wish to change NFIP maps to identify the appropriate process, to collect and submit the necessary supporting data, and, ultimately to help FEMA respond efficiently to the needs of NFIP map users. By increasing the efficiency of the various map change processes in this way, the Guide has proved to be as useful as it is popular.

With increasing land-development pressure, the growth of community awareness of flood risks and the need for adequate flood-mitigation measures, and the advent of new techniques for assessing flood risks, concomitant changes in NFIP regulations have occurred, particularly in those related to the appeal, revision, and amendment processes. Therefore, to remain a useful tool, this Guide has been updated to provide the latest information about those processes. By so doing, we are continuing our efforts to work cooperatively with local officials for the benefit of all citizens.



Acting Administrator
Federal Insurance Administration

Table of Contents

Chapters	Page
Chapter 1	
Introduction	1
National Flood Insurance Program	1
Need for Documentation	4
Map Change Processes	4
New Processing Changes	5
Chapter 2	
How To Use This Guide	7
Step 1--Determining Map To Be Changed and Changes Needed	7
Step 2--Selecting a Map Change Process	10
Chapter 3	
Appeals	13
Background	13
North American Vertical Datum of 1988	13
How To Submit an Appeal	14
Required Supporting Data	14
General Technical Guidance	17
Appeal Resolution Procedures	20
Appeals to District Court	20
Chapter 4	
Protests	23
Changes to Floodplain Boundaries	23
Changes to Corporate Limits	23
Changes to Roads and Road Names	24
Protest Resolution Procedures	24
Chapter 5	
Map Revisions	27
Background	27
Application/Certification Forms	27
Fee-Reimbursement System	27
North American Vertical Datum of 1988	28
How To Request a Map Revision	28
Required Supporting Data	28
Processing Procedures	32
Chapter 6	
Map Revisions Based On Fill	37
Background	37
Application/Certification Forms	37
Fee-Reimbursement System	37
North American Vertical Datum of 1988	37
How To Request a Map Revision Based on Fill	37
Required Supporting Data	38
Processing Procedures	38

Table of Contents (Cont'd)

Chapters (Cont'd)	Page
Chapter 7	
Map Amendments	41
Background	41
Application/Certification Forms	41
North American Vertical Datum of 1988	41
How to Request a Map Amendment	41
Required Supporting Data	42
Processing Procedures	42
Chapter 8	
Conditional Revisions and Amendments	45
Background	45
Application/Certification Forms	45
Fee-Reimbursement System	45
North American Vertical Datum of 1988	48
How to Request a CLOMR	48
Required Supporting Data for CLOMRs	48
Processing Procedures for CLOMRs	49
How To Request a CLOMR-F	49
Required Supporting Data for CLOMR-Fs	49
Processing Procedures for CLOMR-Fs	49
How To Request a CLOMA	50
Required Supporting Data for CLOMAs	50
Processing Procedures for CLOMAs	50
Chapter 9	
Floodway Revisions	53
Background	53
Application/Certification Forms	54
North American Vertical Datum of 1988	54
How To Request a Floodway Revision	54
Required Supporting Data	55
Processing Procedures	55
Chapter 10	
Revisions Based on Adequate Progress	57
Background	57
Required Supporting Data	57
Chapter 11	
Zone AR	59

Table of Contents (Cont'd)

Figures	Page
Figure 1. Milestone Chart for Community Participation in NFIP	2
Figure 2. Title Blocks of NFIP Maps	8
Figure 3. Summary of NFIP Map Change Processes	11
Figure 4. Procedure for Processing Appeals	21
Figure 5. Procedure for Processing Protests	25
Figure 6. Procedure for Processing LOMRs and PMRs	33
Figure 7. Procedure for Processing LOMR-Fs	40
Figure 8. Procedure for Processing LOMAs	43
Figure 9. Procedure for Processing CLOMRs, CLOMR-Fs, and CLOMAs	46

Tables

Table 1. Data Required To Support Map Revisions Based on Effects of Physical Changes in the Floodplain	29
Table 2. Data Required To Support Map Revisions Based on Use of Better Data	30
Table 3. Data Required To Support Map Revisions Based on Use of Alternative Hydrology	31
Table 4. Data Required To Support Floodway Revisions	56
Table 5. Fee Schedule for Requests Submitted on and After September 30, 1993	D-3

Appendices

Appendix A. Glossary of Terms and Abbreviations	A-1
Appendix B. How To Obtain Publications and Backup Data	B-1
Preliminary and Effective Maps and Reports	B-1
Other Publications	B-1
Backup Data	B-2
Appendix C. How To Support Revisions When Backup Data are Unavailable	C-1
Riverine Flooding Sources	C-1
Coastal Flooding Sources	C-1
Recreating Models	C-1
Appendix D. Fee-Reimbursement System	D-1
Background	D-1
Affected Submittals	D-1
Exemptions	D-1
Unfavorable Responses	D-1
Summary of Reimbursable Costs	D-2
Appendix E. Addresses and Telephone Numbers of Federal Emergency Management Agency Offices	E-1
Headquarters Office	E-1
Regional Offices	E-1

Chapter 1

Introduction

This Guide has been designed to provide community officials, planners, and engineers with information about how to request changes to National Flood Insurance Program (NFIP) maps and other flood risk information prepared by the Federal Emergency Management Agency (FEMA).

The goal of this Guide is to provide general information about the approach to be followed in determining the type of map change needed, the various processes for submitting map changes, and the types of supporting data that FEMA needs to review and evaluate requests for map changes. To assist the reader in understanding how the NFIP maps were created, background information about the NFIP, including the regulations and procedures under which requests for changes are handled by FEMA, has also been provided herein.

National Flood Insurance Program

In the face of mounting flood losses and escalating costs to the general taxpayer, the U.S. Congress established the NFIP in 1968. The intent of the NFIP was to mitigate future flood damage and to provide property owners with flood insurance protection. Communities that participate in the NFIP do so in two phases—the Emergency and Regular Phases. In communities participating in the initial phase of the NFIP, the Emergency Phase, limited amounts of flood insurance are available to local property owners. In communities participating in the Regular Phase, full flood insurance coverage is available. The NFIP and related regulations, which define responsibilities and requirements for both FEMA and each participating community, are set forth at Title 44, Chapter I, Parts 59-77, Code of Federal Regulations (CFR).

The NFIP was designed to benefit both individual property owners and communities. It enables property owners to purchase flood insurance at reasonable rates, and it assists communities by requiring that they adopt and administer local floodplain management measures aimed at protecting lives and new construction from future flooding. All

communities that have the authority to adopt, administer, and enforce floodplain management regulations can participate in the NFIP.

Before entering the Emergency and Regular Phases of the NFIP, a community must, if it has not already done so, adopt and enforce floodplain management regulations that are aimed at reducing future flood losses and that meet the minimum standards of the NFIP.

Figure 1 summarizes the milestones that are reached by communities as they enter the Emergency and Regular Phases of the NFIP.

Emergency Phase

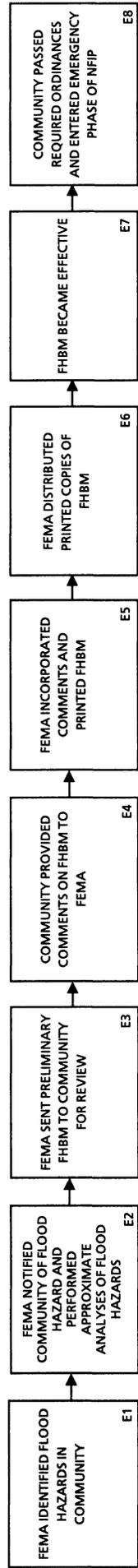
Under the Emergency Phase of the NFIP, FEMA issued Flood Hazard Boundary Maps (FHBMs) for more than 19,000 floodprone communities nationwide. These FHBMs provided approximate delineations of areas subject to inundation by the base (100-year) flood; in the NFIP, these areas are referred to as Special Flood Hazard Areas (SFHAs). The base flood is the flood that has a 1-percent probability of being equaled or exceeded in any given year and has been adopted as a regulatory standard by Federal agencies, and most States, for use in the administration of floodplain management programs.

The boundaries of the SFHAs (referred as 100-year floodplain boundaries) that have been shown on FHBMs are based on one or more of the following: information about past floods, regional flood depth/drainage area relationships, floodplain maps published by other Federal agencies, and simplified hydrologic and hydraulic calculations. Detailed analyses and field surveys have generally not been performed for the preparation of an FHBM. As a result, the floodplain boundaries shown are considered approximate, and the SFHAs are designated "Zone A."

Regular Phase

Generally, at some point after an FHBM has been printed and issued for a community, a detailed engineering study of the flood hazards in that community—a Flood Insurance Study (FIS)—is conducted. The purpose of the FIS is to refine

EMERGENCY PHASE



REGULAR PHASE

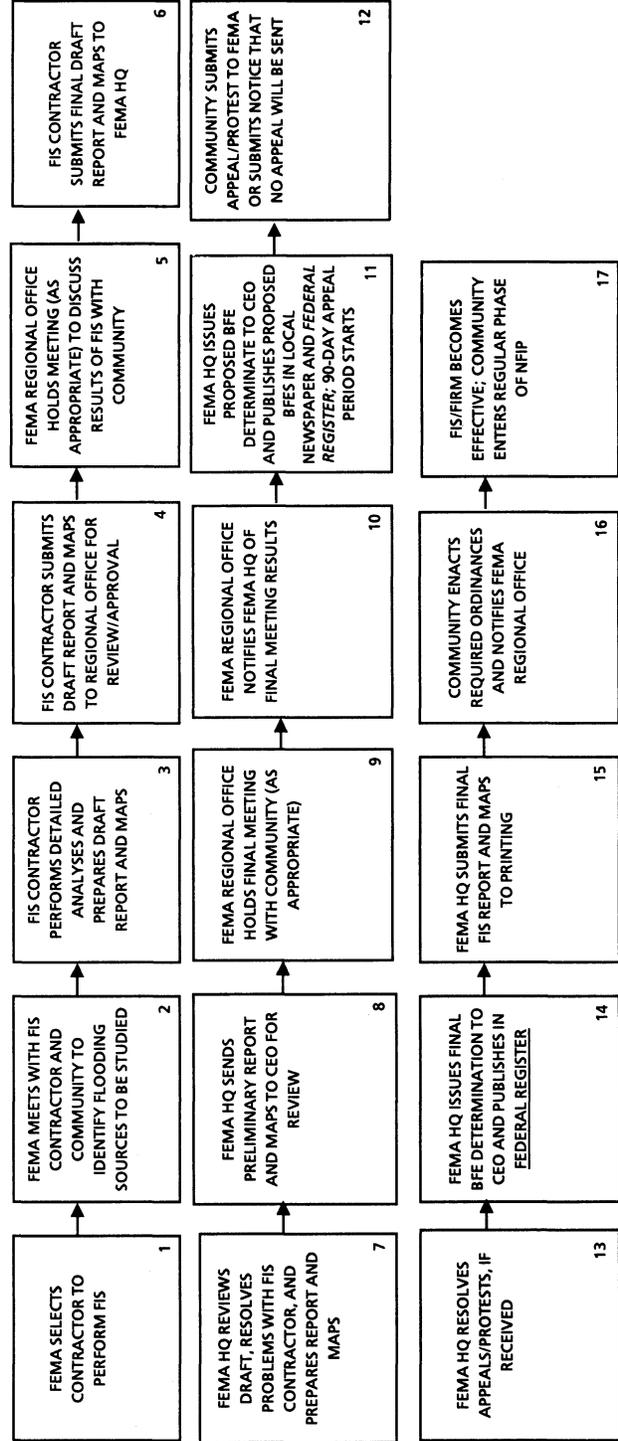


Figure 1. Milestone Chart for Community Participation in NFIP

the 100-year floodplain boundaries shown on the FHBM and to develop new, detailed flood risk information. That information usually consists of: (1) base flood elevations (BFEs), which may be presented as either water-surface elevations (usually referenced to the National Geodetic Vertical Datum of 1929 (NGVD)) or average depths of flow in feet above the ground surface; (2) 10-, 50-, and 500-year flood water-surface elevations; (3) floodway boundaries of the 100-year floodway which is defined as the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the entire 100-year flood discharge can be conveyed with no greater than a 1.0-foot increase in the BFE; and (4) 100- and 500-year floodplain boundaries. The results of the FIS are presented on a Flood Insurance Rate Map (FIRM) and, usually, in an FIS report.

The FIRM depicts 100- and 500-year floodplain boundaries, flood insurance risk zones, BFEs, base flood depths, and, occasionally, 100-year floodway boundaries. The FIS report describes the analyses performed for the FIS and provides tables and figures that present the study results.

As mentioned earlier, the information presented on the FIRM and in the FIS report is usually the result of the detailed engineering analyses performed as part of an FIS. Those analyses include hydrologic analyses that yield flood discharge-frequency relationships and hydraulic analyses that yield computed flood elevations and depths. The hydrologic analyses usually involve the use of statistical analyses of recorded stream gage data, regional discharge-drainage area relationships, or rainfall-runoff models.

For riverine flooding sources, the hydraulic analyses usually involve backwater computations or other hydraulic computations that are based on the computed flood discharges and the results of field surveys. Special techniques are used for the analysis of coastal flooding and alluvial fan flooding.

SFHAs identified through the use of detailed engineering analyses are assigned "detailed" zone designations (Zone AO, Zone AH, Zones A1-A30 or Zone AE, and Zones V1-V30 or Zone VE). The FIRM may also depict approximate SFHAs, which may have been taken directly from an effective FHBM or developed by the FIS

Contractor using approximate engineering analyses.

The 100- and 500-year floodplain and 100-year floodway boundaries may also be shown on a separate Flood Boundary and Floodway Map (FBFM) published as an exhibit in the FIS report. However, for most FISs initiated since January 1, 1985, FBFBMs are not prepared, and all flood risk information, including the 100-year floodway, is shown on the FIRM.

Occasionally, an entire FIRM is created directly from an FHBM; no detailed engineering analyses are performed. Such a FIRM does not present the detailed flood risk information usually shown on FIRMs, but it does enable the mapped community to participate in the Regular Phase of the NFIP. In some cases, no FIRM is created. In such cases, involving communities with minimal or no flood hazard and low potential for future development, the communities are converted to the Regular Phase of the NFIP by a letter. The community is notified that (1) the FHBM has been converted to a FIRM, and information shown in the previously published FIRM should be utilized, or (2) the community is not subject to inundation by the 100-year flood (i.e., that the community is non-floodprone).

In other cases, FEMA determines that, while the flood hazards in the community are minimal, the SFHAs have changed since the FHBM was published. In such cases, a FIRM showing the revised SFHAs is provided to the community.

In still other cases, FEMA uses data that are produced for purposes other than the NFIP to create the NFIP maps and report for a community (e.g., U.S. Army Corps of Engineers Floodplain Information reports and U.S. Soil Conservation Service Flood Hazard Analyses reports). In these cases, the maps and report are processed in the same manner as the contracted studies and restudies.

Additional information about the various types of FIRMs now in effect is provided in a separate FEMA publication, *Guide to Flood Insurance Rate Maps*, which describes the key elements of FIRMs and explains how to use a FIRM. Information about how to obtain copies of

Guide to Flood Insurance Rate Maps and other FEMA publications is provided in Appendix B.

Need for Documentation

The flood risk information presented on the NFIP maps and in the FIS reports forms the technical basis for the administration of the NFIP. Participating communities use the information to develop the floodplain management ordinances required under the NFIP, and FEMA uses the information to establish actuarial rates for flood insurance. Because of the importance of that information, FEMA exercises great care to ensure that the analytical methods employed in FISs are scientifically and technically correct, that the engineering procedures followed meet professional standards, and, ultimately, that the results of the FIS are accurate.

Although the NFIP maps and FIS reports are prepared according to rigorous technical standards, FEMA recognizes that changes to the maps and reports may be necessary. Some reasons for changes are improvements in the techniques used in assessing flood risks, changes in physical conditions in floodplains or watersheds, and the availability of new scientific or technical data. In addition, the limitations imposed by the scales at which the maps are prepared may result in individual properties being inadvertently included in SFHAs.

Therefore, the NFIP regulations allow FEMA to revise and amend NFIP maps and FIS reports, as warranted, at its discretion or after it receives requests from community officials and individual property owners. Indeed, to help FEMA ensure that the maps and reports present information that accurately reflects existing flood risks, the NFIP regulations (as cited at Section 65.3) require that each participating community inform FEMA of any physical changes that affect BFEs in the community and, within 6 months of the date that such data are available, submit those data that show the effects of those changes.

In making revisions and amendments, FEMA must adhere to the same engineering standards applied in the preparation of the original NFIP maps and reports. Therefore, when requesting changes to NFIP maps and reports, community

officials and property owners are required to submit adequate supporting data. Those data, which are described in the following chapters and in the NFIP regulations, enable FEMA to review and evaluate the requests and to carry out its responsibility of ensuring that the flood risk information presented is scientifically and technically correct. Over the years, the majority of community requests for such changes have been found to be warranted, but FEMA cannot make changes without adequate supporting data.

Map Change Processes

The following terms are encountered during the processing of NFIP map changes:

- **Appeal**—A challenge to proposed BFE determinations during a formal 90-day appeal period. The changes that result from successful Appeals are incorporated into the FIS report, FIRM, and/or FBFM before publication.
- **Protest**—A challenge received during the 90-day appeal period that does not address BFEs, but does address other flood risk information, such as the 100-year floodway and floodplain boundaries. The changes that result from successful protests are incorporated into the reports and maps before publication.
- **Map Revision**—A change to an effective NFIP map. The effective map for a community is the latest map issued by FEMA for that community. NFIP maps, including the BFEs, base flood depths, floodways, and other flood risk information that they may contain, become effective after they are published and distributed. The effective date is shown in the title box of each panel of the map and may be labeled as "Effective Date," "Revised," or "Map Revised." When a Map Revision is warranted, FEMA will either revise and republish the affected map panels (and, if necessary, the FIS report), referred to as a Physical Map Revision (PMR), to show the appropriate changes or issue a letter, referred to as a Letter of Map

Revision (LOMR), that describes the changes and officially revises the effective map.

- **Conditional Map Revision**—A response to a request that FEMA determine whether a proposed project, such as a flood-control structure, would warrant a revision to an effective NFIP map after the project is completed. A proposed structural modification could consist of a proposed floodplain modification project or simply the proposed placement of fill for the elevation of one or more structures or parcels of land.

FEMA's comments on such requests are known as "conditional determinations." When such conditional determinations are warranted, they are issued in letters, referred to as Conditional Letters of Map Revision (CLOMRs) and Conditional Letters of Map Revision Based on Fill (CLOMR-Fs), that describe the effect(s) that the proposed project or fill would have on the effective NFIP map. A conditional determination does not actually revise an effective NFIP map.

- **Map Amendment**—A response to a request for exclusion of individual structure(s) and/or legally described parcel(s) of land that were inadvertently included in the SFHA shown on an effective NFIP map. When FEMA determines that structure(s) or parcel(s) of land have been inadvertently included in the SFHA, FEMA issues a letter, referred to as a Letter of Map Amendment (LOMA). The LOMA excludes the structure(s) and/or parcel(s) of land that were inadvertently included in the SFHA and officially amends the effective NFIP map.
- **Conditional Map Amendment**—A response to a request that FEMA determine whether a proposed structure, if built as planned on a legally defined parcel of land that is on natural ground or fill placed prior to the first NFIP map showing that area to be in an SFHA, would be excluded from the SFHA as shown on the effective NFIP map.

When FEMA makes such a determination, it issues a letter, referred to as a Conditional Letter of Map Amendment (CLOMA). A CLOMA does not officially amend the effective NFIP map.

The terms defined above refer not only to types of changes to NFIP maps and reports, but also to the processes under which FEMA will address requests for such changes. Chapter 2 of this Guide will help requesters determine which process(es) to apply to particular requests. The remaining chapters discuss the scientific and technical data that must be submitted in support of requests for various types of changes and describe the procedures by which map changes are made.

New Processing Changes

On October 1, 1992, FEMA implemented changes to Part 72 of the NFIP regulations. As a result of these changes, requesters are required to submit payment for FEMA's review of requests for Map Revisions (PMRs and LOMRs), in the same way that they were previously required to submit payment for requests for conditional determinations (CLOMRs and CLOMAs). A detailed discussion of the expanded fee-reimbursement system, including the fee schedule that went into effect on October 1, 1993, is provided in Appendix D.

FEMA has also instituted another processing change to assist communities/requesters in developing supporting technical data for map change requests and to allow FEMA to respond to these requests more efficiently. On October 1, 1992, FEMA implemented the use of detailed application/certification forms for requesting revisions or amendments to NFIP maps. These forms were implemented for two reasons. First, because the forms provide a step-by-step process for requesters to follow and are comprehensive, requesters are assured of providing all of the necessary information to support their requests without having to go through an iterative process of providing additional information in a piecemeal fashion. Experience has shown this to be a time-consuming and cost-intensive process. Second, because use of the forms assures that the requesters' submissions are complete and more logically structured, FEMA can complete its

review in a shorter timeframe and at a lesser cost to the requester. While completion of the forms may appear to be burdensome, FEMA believes it is prudent to do so because of the advantages that result for the requester. Details on the application/certification forms to be used are provided in Chapters 5 through 9. Information on how to obtain copies of the forms is provided in Appendix B.

Chapter 2

How To Use This Guide

As indicated by the descriptions in Chapter 1, the appropriate process for changing a specific NFIP map is determined by the type of map to be changed, the status of the map (e.g., effective, in a statutory 90-day appeal period), and the types of changes to be made. For example, for changes to proposed BFEs during a statutory 90-day appeal period, the appeal process would be appropriate; for changes to BFEs shown on an effective NFIP map, the map revision process would be appropriate.

Therefore, to determine which process is applicable, the reader should follow two steps, discussed in this chapter. In Step 1, the reader answers the following questions:

- What type of NFIP map is to be changed?
- What is the status of that map?
- What types of changes are to be made?

The information needed to answer those questions is provided below.

In Step 2, the answers from Step 1 are used to choose the appropriate process. The detailed information provided in Step 2 concerning the conditions under which each process is applicable will enable the reader to make that determination.

Once the appropriate process has been identified, the reader can refer to the chapter in which that process is discussed for additional information concerning supporting data and processing procedures.

Step 1—Determining Map To Be Changed and Changes Needed

Identify Type of Map To Be Changed

Changes can be made to FHBMs, FIRMs, and FBFMs. However, because the regulations, required supporting data, and processing procedures vary according to the type of map to be changed, it is important that the reader

identify the type of map in question and understand how the information presented on the map was developed. The descriptions of the NFIP maps presented in Chapter 1 and the sample map title blocks shown in Figure 2 will help in this identification.

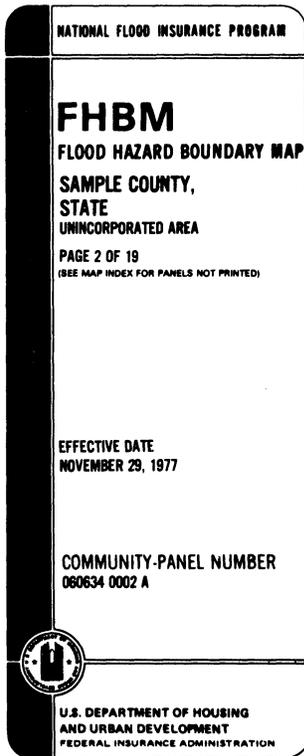
Determine Status of NFIP Map

As shown in Figure 1, when an initial or revised NFIP map is prepared for a community, it is reviewed in preliminary form by that community before being published and becoming effective. The status of the map is the stage in the review and publication process that the map has reached.

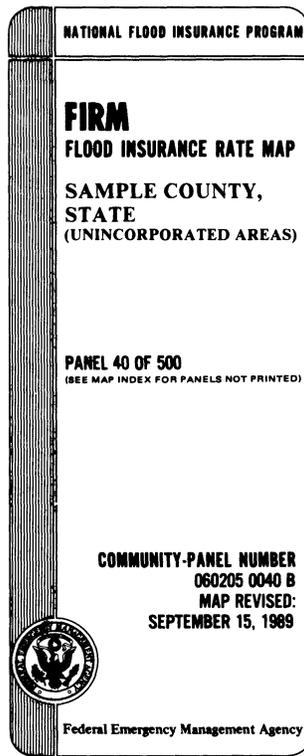
An FHBM presented less information than a FIRM and FBFM, and the information that was presented was generally the result of analyses that were less rigorous than those employed in the preparation of the FIRM and FBFM. Therefore, the NFIP regulations that apply to a community for which only an FHBM had been issued are less comprehensive, and the ordinances that were adopted by the community were less complex, than those required after a FIRM and FBFM had been issued. Consequently, the review periods and processing procedures varied according to map type.

As shown in Figure 1, a more lengthy and complex procedure is followed for the community review of a FIRM or a FIRM accompanied by an FBFM. Preliminary copies of the FIRM, FIS report, and FBFM (as necessary) are sent to the community for an initial review. If the FIRM was based on information developed by an FIS Contractor, the review is usually followed by a formal Consultation Coordination Officer (CCO) meeting, at which community officials and residents meet with representatives of the FEMA Regional Office and may comment on the FIRM and/or FBFM. After any significant problems identified by the community (at the CCO meeting or otherwise) are resolved, a notice of the BFEs shown on the FIRM is sent to the CEO of the community and is published in a local newspaper and in the *Federal Register*. At that point, the BFEs are considered “proposed.”

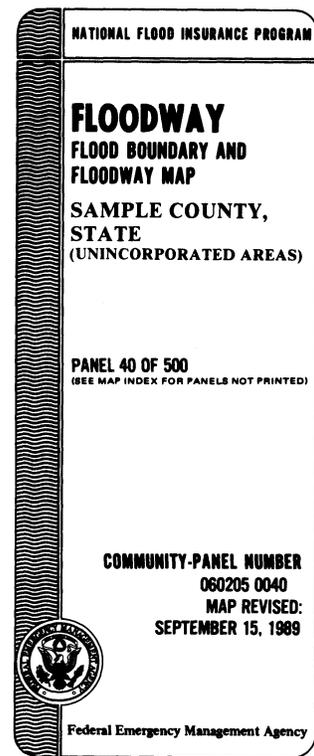
As discussed in more detail in Chapter 3, the NFIP regulations require that when new or revised



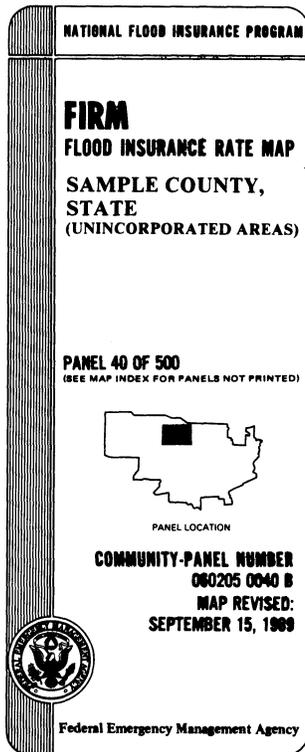
Flood Hazard Boundary Map



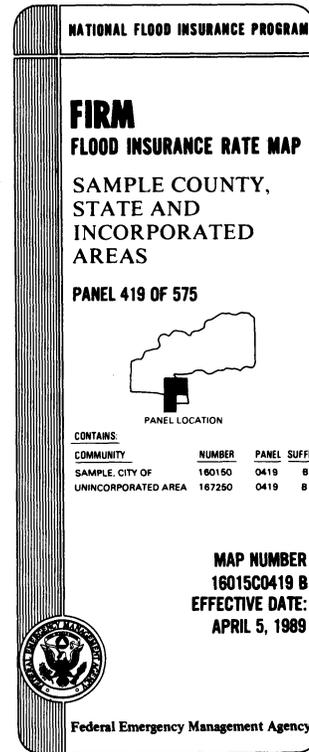
FIRM (Standard Format)



**Flood Boundary and Floodway Map
(Standard Format Only)**



**FIRM (Map Initiative Format—No
Separate Flood Boundary and Floodway Map)**



Countywide FIRM

Figure 2. Title Blocks of NFIP Maps

BFEs are proposed for a community, the community must be given a statutory 90-day appeal period. During this period, community officials or citizens may appeal the proposed BFEs based on scientific or technical data.

After the appeal period has ended and all appeals have been resolved, the Administrator of the Federal Insurance Administration (FIA) will issue a final BFE determination. The Administrator makes the BFEs final by publishing them in the *Federal Register* and sending a final BFE determination letter to the Chief Executive Officer (CEO) of the community.

The final BFE determination letter informs the CEO that the community is being given a period of time to enact the new or modified ordinances required for participation in the Regular Phase of the NFIP. During this period, referred to as the compliance period and usually lasting 6 months, the FIRM and, if appropriate, FBFM and FIS report are printed. At the end of the compliance period, the FIRM and FBFM become effective.

If an effective NFIP map is revised and republished as a result of a FEMA-contracted Flood Insurance Restudy (RFIS) or a Map Revision request, the community is given review periods similar to those described previously and presented in Figure 1, with the following exceptions. When a revision to an effective NFIP map does not include new or revised BFEs, no 90-day appeal period is required. The affected community is usually given only a 30-day review period, after which the compliance period is initiated and the map(s) and report are printed.

If an effective NFIP map is revised through the LOMR process, the map panels will not be revised and republished. However, when it is necessary to clearly depict changes to the NFIP maps, hand-annotated copies of the revised panels will accompany the LOMR. The LOMR officially revises the map panels and the revision usually becomes effective on the date of the LOMR. When BFEs are revised by a LOMR, a 90-day appeal period is provided to the community after the LOMR is issued. As explained in Chapter 5, FEMA generally issues LOMRs to lower or eliminate BFEs.

FEMA notifies community officials by letter as specific milestones in the previously described processes are reached. Any questions concerning the status of the NFIP map that cannot be answered from the information provided routinely by FEMA can be answered by staff members of the appropriate FEMA Regional Office. (See Appendix D for a complete Regional Office listing of addresses and telephone numbers.)

Individuals who need copies of the effective NFIP map(s) for a community, or who simply want to verify that the map they may already have is the effective map, may place an order or ascertain the needed information by calling the Flood Map Distribution Center, which can be reached at 1-800-358-9616. Appendix B provides additional information about how to obtain a copy of an effective NFIP map.

Identify Types of Changes Being Requested

As mentioned earlier in this Guide, NFIP maps present various types of flooding information: floodplain boundaries, floodways, flood insurance risk zones, and BFEs. The maps also depict planimetric features, such as streams and lakes; roads; railroads; major buildings; and boundaries of incorporated communities, counties, and Federal and State lands.

Requests for changes to NFIP maps may involve one or more types of flooding information and may also involve planimetric features shown on the map. Often, because much of the information presented on the map is interrelated, a change to one type of information will necessitate changes to others.

Each of the processes for changing NFIP maps is applicable only to a specific type of change. Therefore, the reader should not only consider the type of change being requested, but also determine whether changes to related map information will be necessary and what those changes are.

In making that determination, the reader must consider the basis for the requested change. For example, a request for a change to a 100-year floodplain boundary delineation may be based

on the effects of a channelization project. However, such a project is also likely to affect the BFEs, floodway boundaries, and stream configuration shown on the map(s). It may not always be possible to identify all changes that may be necessary; however, by attempting to do so, the requester will ensure that the request is processed by FEMA as quickly and efficiently as possible.

By completing Step 1, the reader has identified the type of map to be changed, the status of the map, and the type(s) of change(s) to be made. In Step 2, the reader will determine which process is applicable to the particular request. General descriptions of the conditions under which each process is to be applied are provided in the following portion of this chapter. The chart shown in Figure 3 summarizes the information provided in Steps 1 and 2 and may be used as a guide for choosing the appropriate process.

Step 2—Selecting a Map Change Process

Detailed information about each process, including the types and amounts of data that must be submitted, are provided in Chapters 3 through 9. This Guide is applicable only to changes that may be made under the Appeal, Protest, Map Revision, Conditional Map Revision, Map Amendment, and Conditional Map Amendment processes. If the conditions under which a change is to be made are not the same as those specified for one of the processes described in this section, the reader should discuss the requested change with a representative of the appropriate FEMA Regional Office.

Appeals

Under Title 44, Chapter I, Part 67, CFR, Appeals are defined as requests for changes to proposed BFEs. To qualify as Appeals, such requests must be submitted to FEMA during the statutory 90-day appeal period and must be supported by data that show that the proposed BFEs are either scientifically or technically incorrect.

The formal, statutory 90-day appeal period is provided to a community only when new or revised BFEs are being proposed for the

community and may therefore be required in only three situations: (1) when a community is being converted to the Regular Phase of the NFIP with a FIRM that presents new BFEs; (2) when the BFEs shown on an effective FIRM for a community are being revised by an RFIS or Map Revision; or (3) when an RFIS or Map Revision presents detailed flood information, including BFEs, for a flooding source that was previously studied by approximate methods.

Protests

Because BFEs are not shown on FHBM or FBFMs, the appeal process applies only to FIRMs. In addition, although changes to map information other than proposed BFEs (e.g., floodplain boundaries, floodway boundaries, flood insurance risk zones) may be necessary as part of the resolution of an Appeal, requests that do not involve BFEs do not qualify as Appeals. Requests of this type, when submitted during the 90-day appeal period, are called Protests.

Map Revisions

Under Title 44, Chapter I, Part 65, CFR, changes may be made to the information depicted on effective NFIP maps. Changes to floodplain boundaries, floodway boundaries, flood insurance risk zones, BFEs, flood depths, and other information shown on the maps may be requested under this process.

Such changes may be based only on existing conditions. In general, the effects of proposed projects and future floodplain or watershed conditions cannot be shown on NFIP maps and, therefore, do not warrant Map Revisions.

Occasionally, because of the limitations of the scale at which NFIP maps are prepared, the SFHA boundaries cannot accurately reflect the existence of individual structures or small parcels of land that are above the BFE. This situation can occur when fill has been placed to elevate the structure or parcel or when the structure or parcel is on unaltered high ground.

Although such structures and parcels of land can be removed from the SFHA, the process by which they are removed depends on whether fill was placed and when. If the structure or parcel of land is elevated by fill placed after the effective

Type of Map To Be Changed	Status of Map	Type of Change	Process (Authority)	Method of Change	Chapter of This Guide
FIRM FBFM (PRELIMINARY)	In 90-Day Appeal Period	Change to BFE Changes to Any Information Other Than BFEs	Appeal (44 CFR, Part 67) Protest	Revisions to Map Panels and Report Before Publication	Chapter 3 Appendix 4
FHBM FIRM FBFM	Effective	Changes to Any Flood Hazard Information	Map Revisions (44 CFR, Part 65)	Publication of Revised Map or Issuance of LOMR	Chapter 5
FHBM FIRM FBFM	Effective	Exclusion From SFHA of Structures and Legally Defined Parcels of Land Elevated By Fill Placed After the Effective Date of the First NFIP Map That Showed the Structure or Parcel To Be Within the SFHA	Map Revision (44 CFR, Part 65)	Issuance of LOMR - F	Chapter 6
FHBM FIRM FBFM	Effective	Conditional Determinations Regarding Proposed Projects, Future Conditions, and the Proposed Elevation of Structures and Legally Defined Parcels of Land By Fill	Conditional Map Revision (44 CFR, Part 72)	Issuance of CLOMR or CLOMR - F	Chapter 8
FHBM FIRM	Effective	Exclusion From SFHA of Structures and Legally Defined Parcels of Land Where Topographic Alterations Have Not Occurred Since the Date of the First NFIP Map That Showed the Structure or Parcel To Be Within the SFHA	Map Amendment (44 CFR, Part 70)	Issuance of LOMA	Chapter 7
FHBM FIRM	Effective	Conditional Determinations Regarding Exclusion From SFHA of Proposed Structures or Legally Defined Parcels of Land	Conditional Map Amendment (44 CFR, Part 72)	Issuance of CLOMA	Chapter 8

Figure 3. Summary of NFIP Map Change Processes

date of the first NFIP map that showed the property to be within the SFHA, the request is processed as a request for a Map Revision under the provisions of Section 65.5 of the NFIP regulations. Where fill has not been placed, or was placed before that date, the structure or parcel is considered to have been inadvertently included in the SFHA and the request is processed as a request for a Map Amendment and processed under Title 44, Chapter 1, Part 70, CFR.

Requests for the removal of structures or parcels of land inadvertently included in both the SFHA and regulatory floodway are always processed as requests for Map Revisions in order to include community officials in the notification process.

Conditional Map Revisions

Under Title 44, Chapter 1, Part 72, CFR, FEMA may issue a conditional determination regarding the effects of proposed projects, such as modifications of stream channels and floodplains, and the proposed elevation of individual structures and parcels of land. Under the Conditional Map Revision process, scientific or technical data may be submitted for a proposed action and a request may be made that FEMA review the data and issue a CLOMR. The CLOMR describes the revisions that could be made to the NFIP map in the future, after the modification is in place and functioning effectively. The CLOMR also states whether the completed project would be in compliance with the minimum floodplain management requirements of the NFIP.

Map Amendments

Under Title 44, Chapter 1, Part 70, CFR, FEMA may amend an effective NFIP map, by a LOMA, to exclude an individual structure or legally described parcel of land from the SFHA. Occasionally, individual structures or parcels of land may be inadvertently included in the SFHA on an NFIP map, or it may be difficult for a property owner to determine from the map whether a structure or parcel of land is in the SFHA. A property owner who believes that a specific structure or parcel of land has been incorrectly shown in the SFHA or who cannot determine whether the structure or parcel of

land is in the SFHA can request that FEMA make that determination.

The map amendment process is not applicable to requests that involve changes to the flooding information shown on an NFIP map or requests based on alterations of topography that were made after the date of the first NFIP map that showed the structure or parcel of land to be within the SFHA. Therefore, requests for Map Amendments cannot be based on new topographic, hydrologic, or hydraulic conditions.

Conditional Map Amendments

Under Title 44, Chapter 1, Part 72, CFR, FEMA may issue a conditional determination, called a CLOMA, indicating that a proposed structure, if built on a legally defined parcel of land that is on natural ground or fill placed prior to the effective date of the first NFIP map showing that area to be in an SFHA, would be excluded from the SFHA as shown on the effective NFIP map. The conditional map amendment process is not applicable to situations involving proposed changes to stream channels or floodplains, or to the proposed elevation of individual structures or parcels of land.

Chapter 3 Appeals

The BFEs shown on FIRMs and on the Flood Profiles in FIS reports are the basis for the detailed floodplain boundaries, detailed flood insurance risk zones, and floodway boundaries shown on FIRMs and FBFMs. That information, including the BFEs, is used for floodplain management and insurance purposes by Federal, State, and local agencies. Because of the significance of the BFEs, FEMA is careful to ensure their accuracy. In addition to applying rigorous standards in developing and updating flood risk information, FEMA provides communities with an opportunity to review new or revised BFEs before they become final, and to appeal them if they are believed to be scientifically or technically incorrect.

Background

In preparing initial FISs and FIRMs and in processing revised FISs and FIRMs for RFISs and Map Revisions, FEMA may determine new BFEs for flooding sources for which it has not previously determined BFEs or may revise previously determined BFEs shown on effective FIRMs. When it determines new or revised BFEs for a community, FEMA must, by law, provide the community with a 90-day appeal period.

FEMA starts the appeal period by publishing a notice of the proposed new or revised BFEs in a local newspaper with wide circulation and in the *Federal Register*. The notice is typically published in the legal advertisements portion of the classified advertisement section of the newspaper. Community officials are encouraged to provide an even wider distribution to ensure that residents are aware of the proposed BFEs.

The newspaper notice is published twice; the second publication usually takes place 1 week after the first. On the date of the second publication, the 90-day appeal period begins.

During the appeal period, community officials and individual property owners may appeal the proposed BFEs by submitting data to show that the BFEs are scientifically or technically incorrect.

After the 90-day appeal period has elapsed and any Appeals have been resolved, FEMA issues a final BFE determination.

New BFEs and revised BFEs that result from an RFIS are presented in a Preliminary FIS report and on a Preliminary FIRM, which are sent to the affected community before the start of the appeal period. New BFEs that result from a Map Revision are also presented in a Preliminary FIS report and on a Preliminary FIRM that are sent to the community before the start of the appeal period.

However, revised BFEs that result from a Map Revision, depending on whether they are higher or lower than those on the effective FIRM, may be presented in one of two ways. Revisions that result in higher BFEs are generally made through the PMR process, in which the FIRM and FIS report are revised and reprinted and a Preliminary FIRM and FIS report are sent to the community before the start of the appeal period. Revisions that result in lower BFEs, however, may be made by LOMR; therefore, no revised FIRM or FIS report would be prepared.

The LOMR, which is sent to the community, describes the revisions, including those made to the BFEs; officially revises the FIRM; and informs the community of the publication dates for the notice of the revised BFEs. As with FISs, RFISs, and PMRs, the appeal period begins on the second publication date in the local newspaper.

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be converting NFIP maps gradually from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting an Appeal, the appellant should use the reference datum on the preliminary FIRM panel. For more information on the new datum, the reader should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors*.

Information on how to obtain copies of this document is provided in Appendix B.

How To Submit an Appeal

Because the CEO is responsible for ensuring that the community meets its obligations as a participant in the NFIP, FEMA consults and confers with the CEO, or with a local official designated by the CEO (such as a floodplain administrator, city planner, or city engineer), to resolve Appeals. Therefore, any individual property owner who wishes to appeal the proposed BFEs must submit the Appeal to the CEO or to the designated local official so that the community can comply with the requirements of Part 67 of the NFIP regulations.

The CEO or designated community official should review each Appeal and, when forwarding it to FEMA, should state whether the community supports the Appeal. The CEO or designee may also appeal on behalf of the community.

Appeals must be submitted during the formal 90-day appeal period. However, when the CEO receives or expects to receive numerous Appeals, they should be collected and forwarded to FEMA at the end of the appeal period. It is in the interest of the community for the CEO or designee to notify FEMA of any Appeals before the end of the appeal period; otherwise, FEMA might be unaware of legitimate Appeals and might proceed with issuing the final BFE determination without considering the Appeals.

All Appeals, with supporting data, are to be sent by the CEO to:

Chief, Risk Studies Division
Federal Insurance Administration
Federal Emergency Management Agency
500 C Street, SW.
Washington, DC 20472

Required Supporting Data

An Appeal must be based on data that show the proposed BFEs to be scientifically or technically incorrect. The distinction between "scientifically incorrect" and "technically incorrect" is important because of the differences in the

types and amounts of data that an appellant must submit to demonstrate one versus the other. Definitions of those terms are provided later in this Chapter. First, however, it is appropriate to discuss the meaning of the word "correct" as it applies to the BFEs.

The BFEs presented in FIS reports and on FIRMs are the result of engineering methodologies that are used by FEMA FIS Contractors and others whose data FEMA approves and uses. Because numerous methodologies have been developed for estimating flood discharges and flood elevations under a variety of conditions, FIS Contractors and others use their professional judgment in selecting methodologies that are appropriate for the conditions in a particular community.

In general, because the methodologies are the result of attempts to reduce complex physical processes to mathematical models, the methodologies include simplifying assumptions. Usually, the methodologies are used with data developed specifically for the FIS. Therefore, the results of the methodologies are affected by the amount of data collected and the precision of any measurements made.

Because of the judgments and assumptions that must be made and the limits imposed by cost considerations, the "correctness" of the BFEs is often a matter of degree, rather than absolute. For that reason, appellants who contend that the BFEs are incorrect because better methodologies could have been used, better assumptions could have been made, or better data could have been used must provide alternative analyses that incorporate such methodologies, assumptions, or data and that quantify their effect on the BFEs. FEMA will review the alternative analyses and determine whether they are superior to those used for the FIS.

The data that must be submitted in support of the various types of Appeals are discussed in the subsections that follow.

Scientifically Incorrect BFEs

The BFEs are said to be scientifically incorrect if the methodology used in the determination of

the BFEs is inappropriate or incorrect, or if the assumptions made as part of the methodology are inappropriate or incorrect. An Appeal that is based on the BFEs being scientifically incorrect would therefore contend that the use of a different methodology or different assumptions would produce more accurate results (i.e., BFEs that are more correct).

Appeals Based on Contention That Hydrologic Methodology Is Inappropriate or Incorrect

To show that an inappropriate or incorrect hydrologic methodology has been used, an appellant must submit the following data:

- New hydrologic analysis based on an alternative methodology
- Explanation for superiority of alternative methodology
- New hydraulic analysis based on flood discharge values from new hydrologic analysis
- Revised flood profiles
- Revised floodplain and floodway boundary delineations

Appeals Based on Contention That Hydraulic Methodology Is Inappropriate or Incorrect

To show that an inappropriate or incorrect hydraulic methodology has been used, an appellant must submit the following data:

- New hydraulic analysis based on alternative methodology and original flood discharge values
- Explanation for superiority of alternative methodology
- Revised flood profiles
- Revised floodplain and floodway boundary delineations

Technically Incorrect BFEs

The BFEs are said to be technically incorrect if at least one of the following is true:

- The methodology was not applied correctly.
- The methodology was based on insufficient or poor-quality data.
- The application of the methodology included indisputable mathematical or measurement errors.
- The methodology did not account for the effects of physical changes that have occurred in the floodplain.

Appeals Based on Contention That Methodology Has Not Been Applied Correctly

To show that a hydrologic methodology was not applied correctly, an appellant must submit the following data:

- New hydrologic analysis in which original methodology has been applied differently
- Explanation for superiority of new application
- New hydraulic analysis based on flood discharge values from new hydrologic analysis
- Revised flood profiles
- Revised floodplain and floodway boundary delineations

To show that a hydraulic methodology was not applied correctly, an appellant must submit the following data:

- New hydraulic analysis, based on original flood discharge values, in which original methodology has been applied differently
- Explanation for superiority of new application

- Revised flood profiles
- Revised floodplain and floodway boundary delineations

Appeals Based on Contention That Insufficient or Poor-Quality Data Were Used

To show that insufficient or poor-quality hydrologic data were used, an appellant must submit the following data:

- Data believed to be better than those used in original hydrologic analysis
- Documentation for source of data
- Explanation for improvement resulting from use of new data
- New hydrologic analysis based on better data
- New hydraulic analysis based on flood discharge values resulting from new hydrologic analysis
- Revised flood profiles
- Revised floodplain and floodway boundary delineations

To show that insufficient or poor-quality hydraulic data were used, an appellant must submit the following data:

- Data believed to be better than those used in original hydraulic analysis
- Documentation for source of new data
- Explanation for improvement resulting from use of new data
- New hydraulic analysis based on better data and original flood discharge values
- Revised floodplain and floodway boundary delineations

Appeals Based on Contention That Analysis Contains Indisputable Errors

To show that a mathematical error was made, an appellant must identify the error. FEMA will perform any required calculations and make the necessary changes to the FIRM, FBFM, and FIS report.

To show that a measurement error (e.g., an incorrect surveyed elevation used in the FIS) was made, appellants must identify the error and provide the correct measurement. Any new survey data provided must be certified by a registered professional engineer or licensed land surveyor. FEMA will perform any required calculations and make the necessary changes to the FIRM, FBFM, and FIS report.

Appeals Based on Effects of Physical Changes That Have Occurred in Floodplain

Appellants must identify the changes that have occurred and provide the data FEMA needs to perform a reanalysis. The data may include topographic maps, grading plans, new stream channel and floodplain cross sections, and dimensions of structures.

Among the types of physical changes on which an Appeal may be based is the construction of earthfill levees and similar structures. FEMA has established minimum requirements for structural stability, maintenance, and operation that a levee must meet before it can be recognized as providing 100-year flood protection. The data that appellants must provide in support of an appeal based on the effects of a levee are described in the following section, "General Technical Guidance."

In general, Appeals based on the effects of flood-control structures must demonstrate that the structures are complete and functional. The only exception is for systems that involve Federal funds, where the construction of the system meets the requirement for "adequate progress" as defined in Section 61.12 of the NFIP regulations. The specific data that appellants must provide in support of an Appeal based on the ultimate effects of such a system are also described in "General Technical Guidance."

General Technical Guidance

When developing technical supporting data, appellants should consider the following points:

- Unless Appeals are based on indisputable mathematical or measurement errors or the effects of physical changes that have occurred in the floodplain, they must be accompanied by all data that FEMA needs to revise the FIRM, FBFM, and FIS report. Therefore, appellants should be prepared to perform hydrologic and hydraulic analyses, to plot revised flood profiles, and to delineate revised floodplain and floodway boundaries as necessary.
- New flooding information cannot be added to an NFIP map in such a way as to create mismatches with the flooding information shown for unrevised areas. Therefore, in performing new analyses and developing revised flooding information, appellants must tie the new flood elevations, floodplain boundaries, and floodway boundaries into those shown on the maps for areas not affected by the Appeal.
- For Appeals involving new flood discharge values, extensive changes in hydraulic conditions, or complex situations in which changes made to the flooding information developed for one flooding source will affect that developed for others, appellants may be required to provide new information for a large portion of the map.
- All analyses and data submitted by appellants, including those that show mathematical or measurement errors, must be certified by a registered professional engineer or licensed land surveyor, as appropriate.
- Appeals, except for those based on the effects of flood protection systems under construction that meet the previously listed requirements, cannot be based on the effects of proposed projects or future conditions. Therefore, any maps, plans, drawings, measurements, or ground elevation data submitted by appellants must be certified as representing existing, or "as-built," conditions.
- Generally, when appellants are required to submit hydrologic or hydraulic analyses, those analyses must be performed for the same recurrence interval floods studied in the FIS. For riverine, lacustrine, and coastal flooding sources studied by detailed methods, FISs include analyses of the 100-year flood and, usually, the 10-, 50-, and 500-year floods. Often, a hydraulic analysis of the 100-year floodway is performed for riverine flooding sources. On the other hand, in areas subject to shallow flooding, only 100-year flood depths are analyzed. However, in areas subject to alluvial fan flooding (a type of shallow flooding) analyzing the 100-year flood depths may require developing the entire flood discharge-frequency relationship (not just the 100-year flood discharge). Therefore, the extent of the hydrologic and hydraulic analyses appellants may be required to submit is determined not only by the basis of the Appeal, but also the type of flooding source and the scope of the FIS.
- Unless Appeals are based on the use of alternative models or methodologies, the hydrologic and hydraulic analyses that appellants submit must be performed with the models used for the FIS. For FISs, hydrologic analyses for riverine flooding sources are usually performed with standard engineering methodologies, such as flood-frequency analyses of stream gage data, or with computer models that are in the public domain, such as the U.S. Army Corps of Engineers (COE) HEC-1 model or the U.S. Soil Conservation Service (SCS) TR-20 model. For FISs, hydraulic analyses for riverine flooding sources are usually performed with the COE HEC-2 step-backwater model or a similar and widely accepted model, such as the SCS WSP-2

model, or the U.S. Geological Survey (USGS) WSPRO model.

For the analysis of alluvial fan flood hazards and the hazards associated with coastal storm surge and wave action, including wave height and wave runup, FEMA has established or adopted special methodologies and computer models. For analyses of lacustrine and sheetflow flood hazards, FEMA uses a variety of standard engineering models and methodologies.

Appellants may request from FEMA copies of the input and output data from the model(s) used in a specific FIS or copies of other calculations or analyses performed for the FIS. (See Appendix B for details.)

- As required by Paragraph 65.6(a)(6) of the NFIP regulations, when Appeals are based on the use of an alternative hydrologic or hydraulic model, appellants must show that several conditions have been met. First, the model used must have been reviewed and accepted for general use by a Federal agency responsible for floodplain identification or regulation or by a notable scientific body. Second, the model has been well documented (with a user's manual that includes source codes). Finally, the model must be available to all present and future parties affected by flood insurance mapping developed or amended through the use of the model.
- Although requests for revisions to floodways do not qualify as Appeals, the data on which successful Appeals are based often include new floodway analyses. Information concerning additional data that must be submitted in support of appeals that involve changes to floodways is provided in Chapter 9 of this Guide.
- Generally, when appellants are required to submit delineations of floodplain boundaries, both the 100- and 500-year floodplain boundaries must be

submitted. However, if the FIS includes analyses of only the 100-year flood for the flooding source that is the subject of the Appeal, only the 100-year floodplain boundaries must be submitted. The boundaries are to be shown on a topographic map whose scale and contour interval are sufficient to provide reasonable accuracy.

- To support Appeals based on the effects of earthfill levees or similar structures, appellants must submit the data below to show that the structural stability, operation, and maintenance requirements of Section 65.10 of the NFIP regulations have been met.
 1. Freeboard, Riverine Levee—Evidence that the levee provides a minimum of 3 feet of freeboard above the BFE and that within 100 feet of wherever the flow is constricted (e.g., a bridge), an additional 1 foot of freeboard is added to that minimum; moreover, evidence that the upstream end of the levee provides an additional 0.5 foot of freeboard added to the minimum
 2. Freeboard, Coastal Levee—Evidence that the levee provides a minimum of 1 foot of freeboard above the height of the 1-percent wave or the maximum wave runup (whichever is greater) associated with the 100-year stillwater surge elevation, but in no case less than 2 feet of freeboard above the 100-year stillwater surge elevation
 3. Closures—Evidence to show that all drainage structures that penetrate the levee are fitted with closure devices that are structural parts of the levee during operation and designed according to sound engineering practice
 4. Erosion Protection—An engineering analysis that demonstrates that no appreciable erosion of the levee embankment can be expected during the 100-year flood

5. **Stability**—An engineering analysis that evaluates the stability of the levee embankment and foundation
6. **Settlement**—An engineering analysis that assesses the potential for, and magnitude of, losses of freeboard that may result from settlement of the levee and that demonstrates that the minimum required freeboard will be maintained
7. **Operations**—A formal levee operation plan
8. **Maintenance**—A formal levee maintenance plan

Exceptions to the minimum freeboard requirements cited in Items 1 and 2 for riverine and coastal levees may be approved under certain conditions. Any request for an exception must be supported by appropriate engineering analyses that show that, even with the lesser freeboard, a high level of certainty for 100-year flood protection exists.

For riverine levees, the supporting analyses must evaluate the uncertainty in the estimated BFE and must assess, at a minimum, the statistical confidence limits of the 100-year peak discharge; stage-discharge relationships for floods larger than the 100-year flood; and the sources, potential, and magnitude of debris, sediment, and ice accumulation that may affect those relationships. The analyses must also show that the levee will remain structurally stable during the base flood, when such additional loading conditions are imposed. Freeboards of less than 2 feet will not be accepted.

For coastal levees, the supporting analyses must evaluate the uncertainty in the estimated base flood loading conditions. Particular emphasis must be placed on the effects of wave attack and overtopping on the stability of the levee. Freeboards of less than 2 feet above the computed stillwater surge elevation will not be accepted.

In lieu of the data described in Items 1 through 6, appellants may submit certifications by a Federal agency with responsibility for levee design that the levee has been adequately designed and constructed to provide 100-year flood protection.

- To support an Appeal based on the effects of a flood protection system that involves Federal funds and is under construction at the time of the Appeal, appellants must submit the data below to show that the requirements of Section 61.12 of the NFIP regulations have been met.
 1. Evidence that adequate progress has been made on construction (i.e., evidence to show that 100 percent of the total cost of the complete system has been authorized, at least 60 percent of the total cost has been appropriated, at least 50 percent of the total cost has been expended, all critical features are under construction and each is 50 percent completed as measured by the expenditure of budget funds, and the community has not been responsible for any delay in the completion of the system)
 2. A complete statement of all relevant facts concerning the flood protection system, including, but not limited to, supporting technical data, cost schedules, budget appropriation data, and extent of Federal funding of construction of system. The statement must include information that identifies all persons affected by the system or by the Appeal; a full and precise statement of the purpose of the system; and a detailed description of the system, including construction completion target dates.
 3. True copies of all contracts, agreements, leases, instruments, and other documents related to system

4. An analysis that shows how the statement of facts (Item 2) and the documents (Item 3) bear on the evidence of adequate progress
5. Statement of whether the flood protection system is the subject of litigation before any Federal, State, or local court or administrative agency and, if so, the purpose of that litigation
6. Statement of whether the community previously requested a determination concerning the same subject and, if so, the disposition of request

The procedure described above does not apply when the flood protection system under construction is being financed without Federal funds.

Appeal Resolution Procedures

The procedures that are to be followed by the appellant and FEMA in handling an Appeal are summarized in Figure 4.

By a letter to the CEO, FEMA will acknowledge receipt of all Appeals submitted. Copies of the acknowledgment letter will be sent to each appellant unless the number of appellants is so great that to do so would not be practical. In such cases, the CEO is responsible for informing appellants that FEMA has received the Appeals.

FEMA will review all Appeals and the supporting data submitted with them. If any questions or problems arise, FEMA will work with the CEO, the community official designated by the CEO, or the appellants to resolve them.

If additional supporting data are required, FEMA will request those data by letter. The letter will be sent to the CEO. A copy of the letter will be sent to the community official designated by the CEO, if appropriate, and to the individual appellants, if it is practical to do so.

To avoid delaying the resolution of Appeals, FEMA will generally allow only 30 days for the

CEO to provide the requested data. If the data are not provided within the allotted time, FEMA will resolve the Appeals using the data originally submitted. If the requested data are provided within the 30-day period, FEMA will consider them before resolving the Appeals.

It should be noted here that, although the appeal period is the appropriate time to submit scientific or technical data concerning the BFEs, if a community is unable to obtain and submit such data at that time, it may pursue a Map Revision under the provisions of Part 65 of the NFIP regulations after the FIRM has become effective. (See Chapter 5.)

If Appeals are not supported by the data that have been submitted, FEMA will inform the CEO by letter that the Appeals are denied. If Appeals are adequately supported, FEMA will revise the BFEs and any other information affected by the Appeals. If the Appeals involved the proposed BFEs shown on a new or revised FIRM, FEMA will revise the FIRM and, if necessary, the accompanying FIS report and FBFM. A letter that explains the resolution of the Appeals will be sent to the CEO. Copies of the revised reports and maps may be sent if appropriate. The community will have 30 days to review and comment on the resolution. At the end of the review period, after all comments on the Appeal resolution have been addressed, FEMA will issue a final BFE determination letter and publish the BFEs in the *Federal Register*.

If the Appeals involve BFEs proposed in a LOMR, FEMA will explain the resolution of the Appeals in a letter to the CEO. The community will have 30 days to review and comment on the resolution, after which FEMA will issue a final BFE determination letter and publish the BFEs in the *Federal Register*.

Appeals to District Court

Under the provisions of Section 67.12 of the NFIP regulations, an appellant who is aggrieved by the final determination may, within 60 days of receipt of the final determination letter, appeal the determination to the U.S. District Court for the district in which the community is located. While the Appeal is being reviewed by the U.S. District Court, the final determination will be effective, unless it is stayed by the Court for good cause shown.

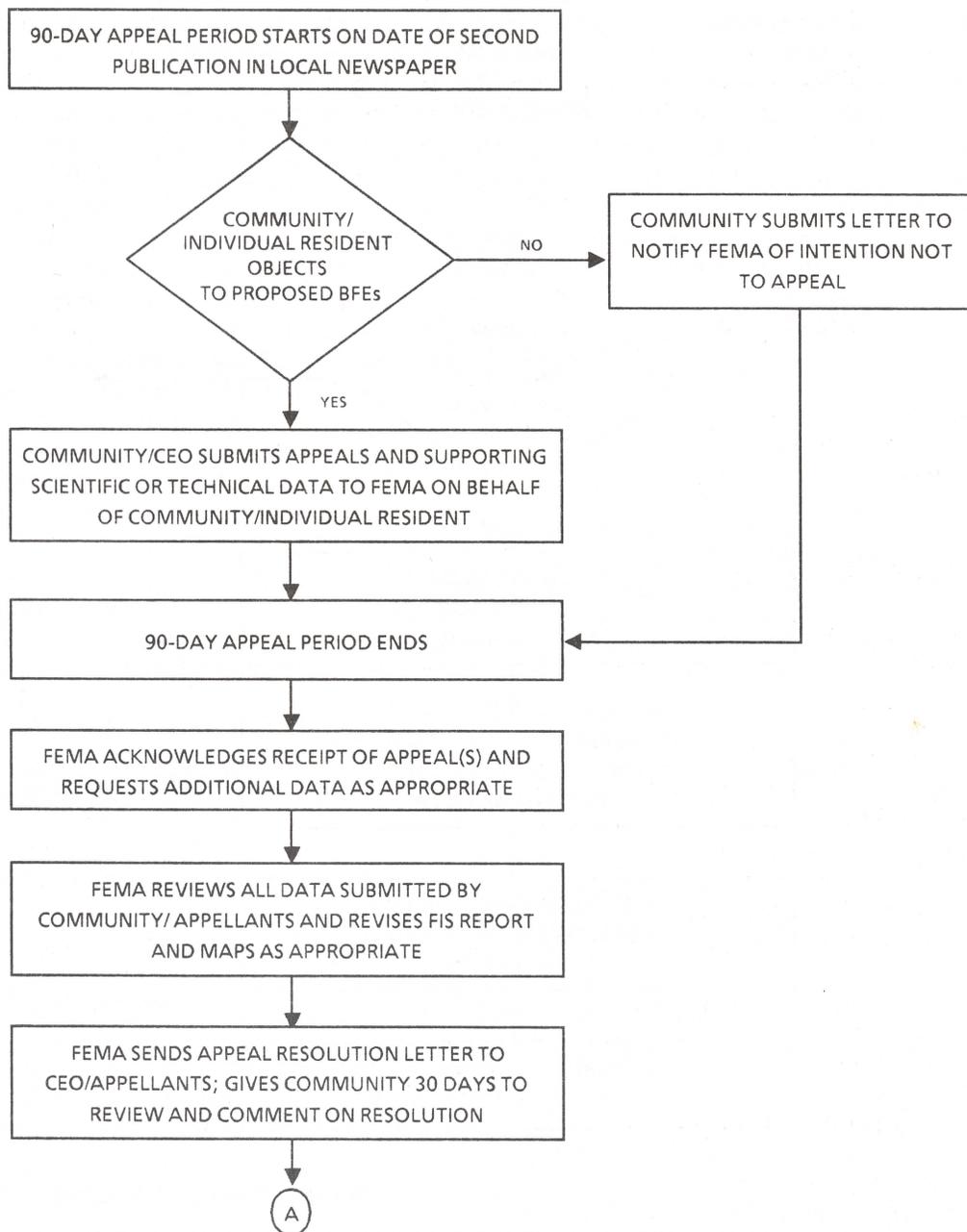


Figure 4. Procedure for Processing Appeals

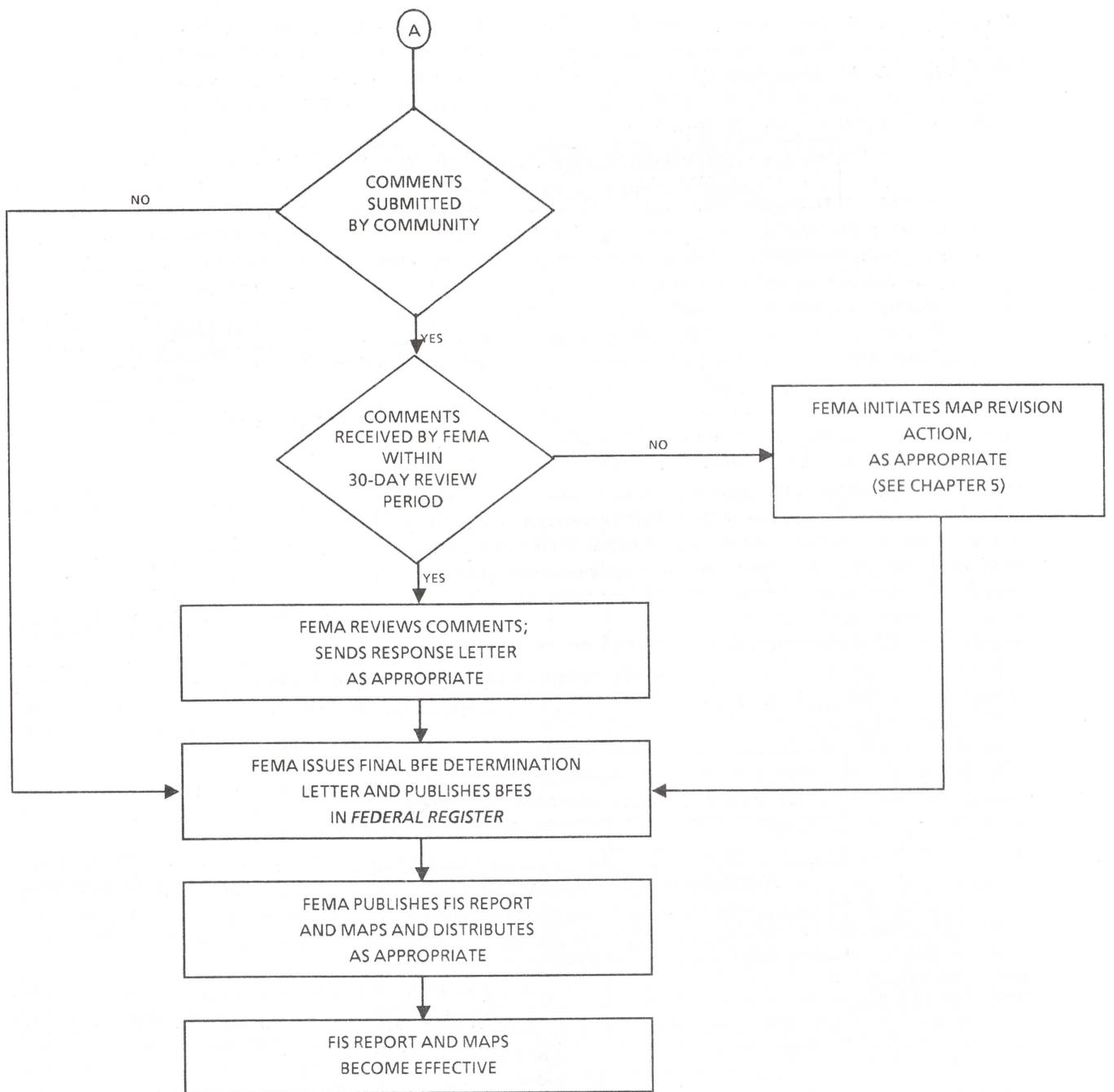


Figure 4. Procedure for Processing Appeals (Cont'd)

Chapter 4 Protests

During the formal 90-day appeal period, a community official or an individual property owner may wish to object to information shown on the FIRM, FBFM, or FIS report. If the objection does not involve the proposed BFEs, it does not, according to Part 67 of the NFIP regulations, constitute an Appeal. Such objections are called Protests.

Like Appeals, Protests should not be submitted directly to FEMA by individual property owners. They are to be submitted to the CEO or a community official designated by the CEO. The CEO or designated community official should review the Protests and, when forwarding them to FEMA, should state whether the community supports them. Protests should be sent to the FEMA Headquarters office at the following address:

Chief, Risk Studies Division
Federal Insurance Administration
Federal Emergency Management Agency
500 C Street, SW.
Washington, DC 20472

Protests will generally involve changes to one of the following:

- Floodplain boundary delineations
- Corporate limits
- Roads and road names

The various types of Protests and the data that must be submitted to support them are discussed in the following paragraphs.

Changes to Floodplain Boundaries

Flooding Sources Studied by Detailed Methods

Usually, detailed floodplain boundaries are delineated using topographic maps and the BFEs resulting from the hydraulic analysis performed for the FIS. If topographic maps or other ground elevation data are submitted that are of greater

detail than those used by FEMA or that show more recent topographic conditions, FEMA will use them to revise the floodplain boundaries shown on the FIRM and FBFM.

All maps and other supporting data submitted must be certified by a registered professional engineer or a licensed land surveyor and must reflect existing conditions. Maps prepared by an authoritative source, such as the USACE, USGS, U.S. Bureau of Reclamation, or a State department of highways and transportation, are acceptable without certification as long as the sources and dates of the maps are identified.

Flooding Sources Studied by Approximate Methods

Usually, approximate floodplain boundaries are delineated with the best available data, including flood maps published by other Federal agencies, information on past floods, and simplified hydrologic and hydraulic analyses. If more detailed data or analyses are submitted, FEMA will use them to revise the floodplain boundaries shown on the FIRM and FBFM. Such data and analyses would include the following:

- Published flood maps that are more recent or more detailed than those used by FEMA
- Analyses that are more detailed than those performed by FEMA or that are based on better data than those used by FEMA

All data and analyses submitted must be certified by a registered professional engineer or licensed land surveyor.

Changes to Corporate Limits

The corporate limits shown on NFIP maps are taken from community maps obtained by FEMA Contractors during the course of processing FISs, RFISs, or PMRs. When changes to the corporate limits shown on the NFIP map are necessary, an up-to-date community map should be submitted. FEMA may use the community map to revise the corporate limits shown on the FIRM and FBFM, or will explain to the CEO why no changes were made.

Changes to Roads and Road Names

In general, FEMA shows on its maps all roads that are in or adjacent to floodplains. If maps are submitted that show new or revised information concerning the locations and names of roads in or adjacent to floodplains, FEMA will revise the FIRM and FBFM as appropriate.

Protest Resolution Procedures

The steps that are followed in processing Protests are shown in Figure 5. Changes that must be made to the FIRM, FBFM, and/or FIS report as a result of Protests are usually incorporated at the time the maps and report are printed. Generally, FEMA will explain the resolution of any Protests that have been submitted in the letter that informs the CEO of the final BFE determination. However, when necessary to clearly explain the revisions to be made, FEMA may issue a separate Protest resolution letter and/or provide the community with revised copies of the affected FIRM and FBFM panels.

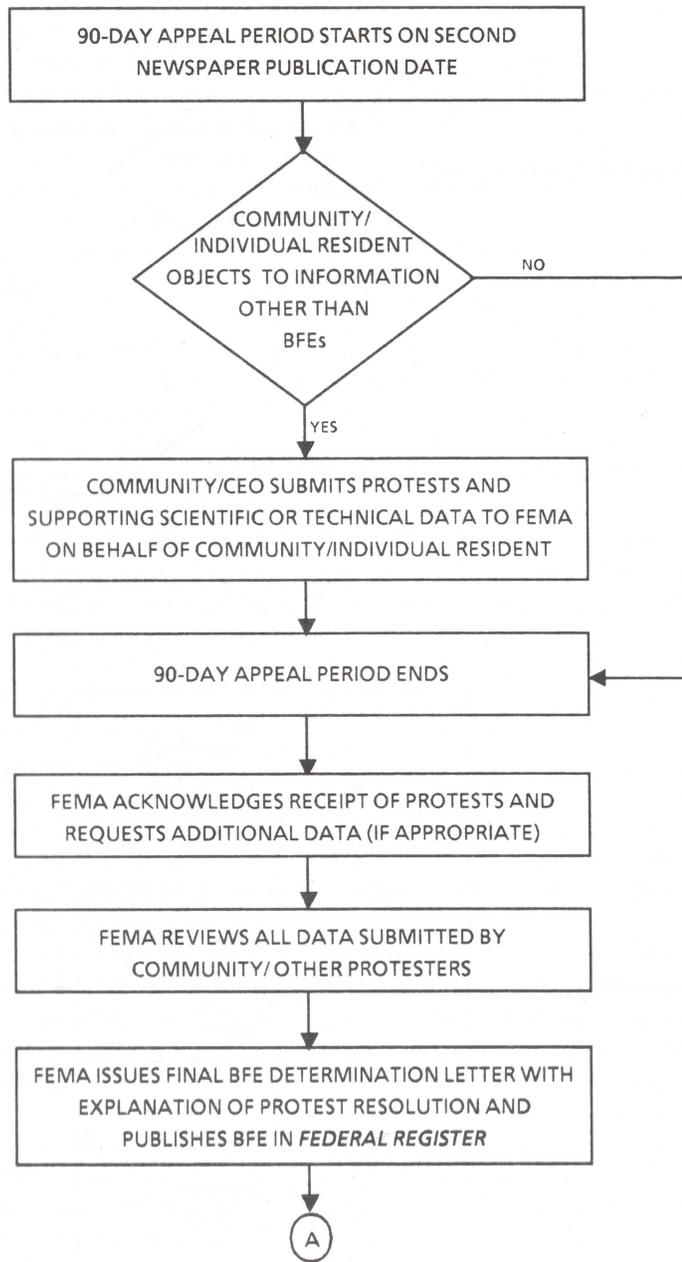


Figure 5. Procedure for Processing Protests

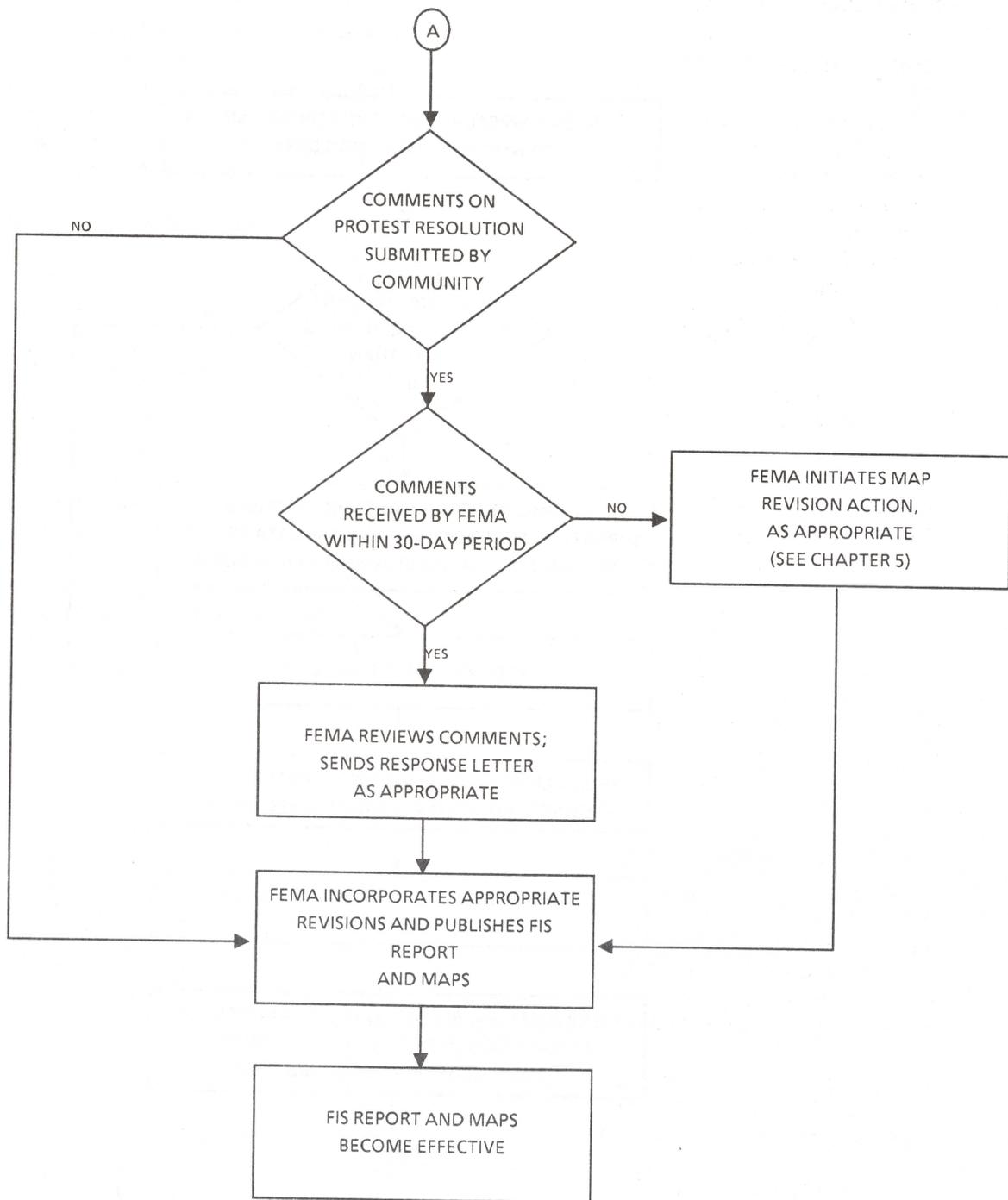


Figure 5. Procedure for Processing Protests (Cont'd)

Chapter 5

Map Revisions

Background

To provide a sound basis for floodplain management and insurance rating, NFIP maps must present flood risk information that is correct and up to date. Because flood risk information is subject to change, FEMA has developed the map revision process, under which communities may request that effective NFIP maps be revised to incorporate new or corrected flooding information.

The information depicted on effective NFIP maps may be revised by a PMR or by a LOMR. A PMR involves revising and republishing the individual map panels affected by the requested changes. When NFIP maps are revised by a LOMR, the changes made to the maps are described in a letter; the revised map panels are not printed. (However, when revisions cannot be adequately described in writing, annotated photocopies of the affected map panels may be provided with the LOMR.)

Because of the costs involved in printing new map panels, FEMA has generally physically revised and re-published maps only when it is necessary to show changes involving a large area of land or increased flood risks. Changes that involve increased flood risks include adding new SFHAs and/or floodways, enlarging existing SFHAs and/or floodways, shifting existing SFHAs and/or floodways to areas not previously within the SFHAs and/or floodways, and increasing BFEs. To make other types of map changes, FEMA has usually issued LOMRs.

LOMRs may be used for Map Revisions that decrease the size of SFHAs/floodways, but usually are not used for Map Revisions that shift existing SFHAs/floodways to areas not previously within the SFHAs/floodways, even when the size of the SFHA/floodway is generally being decreased. LOMRs are especially well suited to changes that involve only small areas within a community.

Although changes may be made to any of the information shown on an effective NFIP map,

FEMA generally will not revise an effective map unless the changes involve modifications to the 100-year flood information. Requests for changes that involve other information (e.g., roads, road names, and corporate limits) will usually be filed for future use. If a physical revision becomes necessary as a result of an RFIS or a request for changes to flooding information, all requests on file will be addressed at that time.

Application/Certification Forms

In 1992, FEMA developed the *Application/Certification Forms and Instructions for Revisions to National Flood Insurance Program Maps* to make the Map Revision process quicker and more efficient. These forms are discussed in more detail later in this chapter.

Fee-Reimbursement System

The NFIP is non-taxpayer funded and its expenses are paid for by policyholders. Therefore, to minimize the financial burden on the policyholders while maintaining the NFIP as self-sustaining, FEMA has implemented a procedure to recover costs associated with reviewing and processing requests for conditional and final modifications to published information and maps. Details of that system and a listing of the fees that have been established for requests submitted on and after October 1, 1993, are provided in Appendix D.

Although many flood protection projects are intended to reduce flood hazards so that floodplain areas can be developed, FEMA recognizes that projects undertaken by Federal, State, and local governments are often intended to reduce the risks to lives and property in areas that have already been developed. Because projects of the latter type will benefit the general public and the NFIP by protecting existing development from future floods, fees are not recouped by FEMA for determinations for such projects. Therefore, when a Federal, State, or local government or its agency requests a PMR or LOMR, it may submit, in lieu of the required fees, a certification that the project is intended primarily to reduce flood losses to existing development in identified flood hazard areas and request that the fee requirement be

waived. If appropriate, FEMA will waive the fee requirement. The reader should refer to Appendix D for more details on the types of requests that qualify for fee exemptions.

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be gradually converting NFIP maps from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting a Map Revision request, requesters should use the reference datum on the applicable, effective FIRM panel. For more information on the new datum, requesters should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors*. Information on how to obtain copies of this document is provided in Appendix B.

How To Request a Map Revision

A community or private party may request that an NFIP map be revised at any time. When the request does not involve the proposed BFEs, the map revision procedures of Part 65 of the NFIP regulations are to be followed. As noted in Chapter 1 of this Guide, Section 65.3 of the NFIP regulations requires that each participating community inform FEMA of any physical changes that affect BFEs in the community and submit data that show the effects of those changes within 6 months of the date that the data are available.

To request a PMR or LOMR, the requester must complete the appropriate parts of the *Application/Certification Forms for Map Revisions to National Flood Insurance Program Maps*. Copies of these forms may be obtained from the FEMA Headquarters or Regional Offices. (See Appendix B.) These forms were prepared to address most types of revision requests received. For other types of requests, such as requests involving coastal or alluvial fan

flooding, only the applicable parts of these forms should be submitted.

Because the CEO of the community is responsible for ensuring that the community meets its obligations as a participant in the NFIP, either the CEO or a community official designated by the CEO (such as a floodplain administrator, city planner, or engineer) must be aware of all requests for Map Revisions. Therefore, any individual property owner, developer, or other person who wishes to request a Map Revision must have the community CEO or a designated official acknowledge this requested change by completing the appropriate sections of the "Revision Requester and Community Official Form" of the application/certification forms.

If FEMA receives a Map Revision request directly from a private party, without community concurrence, FEMA will ask the requester to provide evidence that the request was first submitted to the CEO or designated official.

Revisions to effective NFIP maps are usually requested because of changes that have taken place in the floodplain. Such changes include, but are not limited to, the construction of new bridges, culverts, levees, and channel improvements. Occasionally, Map Revisions will be requested because the analyses used by FEMA to develop the data shown on the effective NFIP map are found to contain errors or because a requester believes that the use of alternative methodologies or better data will provide superior results.

Required Supporting Data

To support requests based on the effects of physical changes that have occurred in the floodplain or on the use of alternative methodologies or better data, the requester must provide new analyses, in which the alternative methodologies or better data are used, and all other data FEMA would need to revise the effective map. FEMA will not perform any analyses to determine either the nature or extent of the changes that might be necessitated by those types of requests. The data that must be submitted in support of various types of Map Revision requests are detailed in Tables 1, 2, and 3.

Table 1. Data Required To Support Map Revisions Based on Effects of Physical Changes in the Floodplain^a

	Changes Affecting Hydrologic Conditions	Changes Affecting Hydraulic Conditions	Changes Affecting Topographic Conditions
General description of changes	•	•	•
As-built plans	•	•	
New hydrologic analysis	•		
New hydraulic analysis Based on new flood discharge values Based on original flood discharge values	•	•	
Revised delineations of floodplain boundaries on topographic map	•	•	•
Revised delineations of floodway boundaries on topographic map	•	•	
Annotated copies of FHBM, FIRM, FBFM, flood profiles, and FIS report tables, as appropriate, showing requested revisions	•	•	•
New topographic information (e.g., spot elevations, grading plans, and contour maps)			•

^a Because the required data will vary with each individual request, requesters should refer to the Application/Certification Form Package for details. Data other than those shown in the table may be requested.

Table 2. Data Required To Support Map Revisions Based on Use of Better Data^a

	Better Hydrologic Data	Better Hydraulic Data	Better Topographic Data
Better data	•	•	•
Source of data	•	•	•
Explanation of improvement	•	•	
New hydrologic analysis	•		
New hydraulic analysis Based on new flood discharge values Based on original flood discharge values	•	•	
Revised delineations of floodplain boundaries on topographic map	•	•	•
Revised delineations of floodway boundaries on topographic map	•	•	
Annotated copies of FHBM, FIRM, FBFM, flood profiles, and FIS report tables, as appropriate, showing requested revisions	•	•	•

^a Because the required data will vary with each individual request, requesters should refer to the Application/Certification Form Package for details. Data other than those shown in the table may be requested.

Table 3. Data Required To Support Map Revisions Based on Use of Alternative Methodology^a

	Alternative Hydrologic Methodology ^b	Alternative Hydraulic Methodology
New hydrologic analysis based on alternative methodology	•	
New hydraulic analysis based on new hydrologic analysis	•	
New hydraulic analysis based on alternative methodology and original discharge values		•
Explanation for superiority of alternative methodology	•	•
Revised delineations of floodplain and/or floodway boundaries on topographic map	•	•
Annotated copies of FHBM, FIRM, FBFM, flood profiles, and FIS report tables, as appropriate, showing requested revisions	•	•

^a Because the required data will vary with each individual request, requesters should refer to the Application/Certification Form Package for details. Data other than those shown in the table may be requested.

^b When an alternative hydrologic methodology is used, the methodology should be applied to the entire flooding source/waterway.

To support requests based on the contention that mathematical or measurement errors have been made, the requester needs only to identify the errors and provide the new data that FEMA will use to perform new analyses and correct the maps.

Processing Procedures

The procedures that are followed in processing requests for PMRs and LOMRs are summarized in Figure 6.

In its review of a Map Revision request, FEMA will acknowledge receipt of the request by letter and, if necessary, by telephone to the person who submitted the request. If that person is a private party, copies of all letters to that person from FEMA will be sent to the CEO.

After a Map Revision request has been received from the CEO or a private party, FEMA will perform a preliminary review to check if the applicant has completed the appropriate portions of the application/certification forms, to determine whether the necessary data and initial fee or fee waiver have been provided and, if a private party submitted the request to FEMA, to ensure that the community is aware of the request.

If the required supporting data, forms, or fee/fee waiver have not been provided, FEMA will send a letter to the party that submitted the request. This letter will identify any supporting data, forms, or fee that the requester has not submitted. Such letters generally are sent within 30 days. Until the requested data, forms, and/or fee are submitted, FEMA will not take any further action concerning the request.

If FEMA determines from its preliminary review that the basic supporting data have been provided and that either the required initial fee has been provided or it is appropriate to waive the fee requirement, FEMA will then inform the requester of the amount of time that will be needed to complete its detailed review of the request and supporting data (usually 30 to 90 days).

After completing its detailed review, FEMA will inform the requester by letter of any additional

supporting data that must be submitted. Such letters will be issued within the 90-day period stipulated in the NFIP regulations, and generally are sent within 30 days. Again, no further action will be taken on the request until the required supporting data are received.

Once all required data have been provided, FEMA will complete its review and determine whether changes are warranted. If the data submitted do not warrant any changes to the information shown on the effective NFIP map, FEMA will inform the requester by letter. If changes are warranted, FEMA will either process a PMR or issue a LOMR.

For PMRs, only the FIRM panels affected by the changes are revised; the corresponding FBFM panels and FIS report are also revised as necessary. The revised materials are sent to the community for review, generally for a period of 30 days. When PMRs involve new or changed BFEs, the 30-day period is followed by a formal 90-day appeal period, during which the BFEs may be appealed. (For more information on Appeals, see Chapter 3.)

When the BFEs have been lowered, FEMA may print the revised FIRM and FIS report during the appeal period. If an Appeal is submitted, FEMA will delay the printing of the new FIRM and FIS report or, if necessary, revise the new FIRM after it has been printed. Because Appeals are rarely submitted when BFEs have been lowered, this procedure has proved to be a fast and effective method of providing the community with revised NFIP maps. When BFEs have been added or increased, the FIRM will not be printed until after the appeal period has ended and any Appeals have been resolved.

When PMRs do not involve new or changed BFEs, no appeal period is necessary. The maps are printed after the 30-day review period has ended and are effective as of the date of the map.

Generally, FEMA will revise and republish an effective NFIP map when increased flood hazards (i.e., higher BFEs, new or enlarged SFHAs) will be shown.

LOMRs, which are usually issued when revisions reflect decreased flood hazards, are sent to the

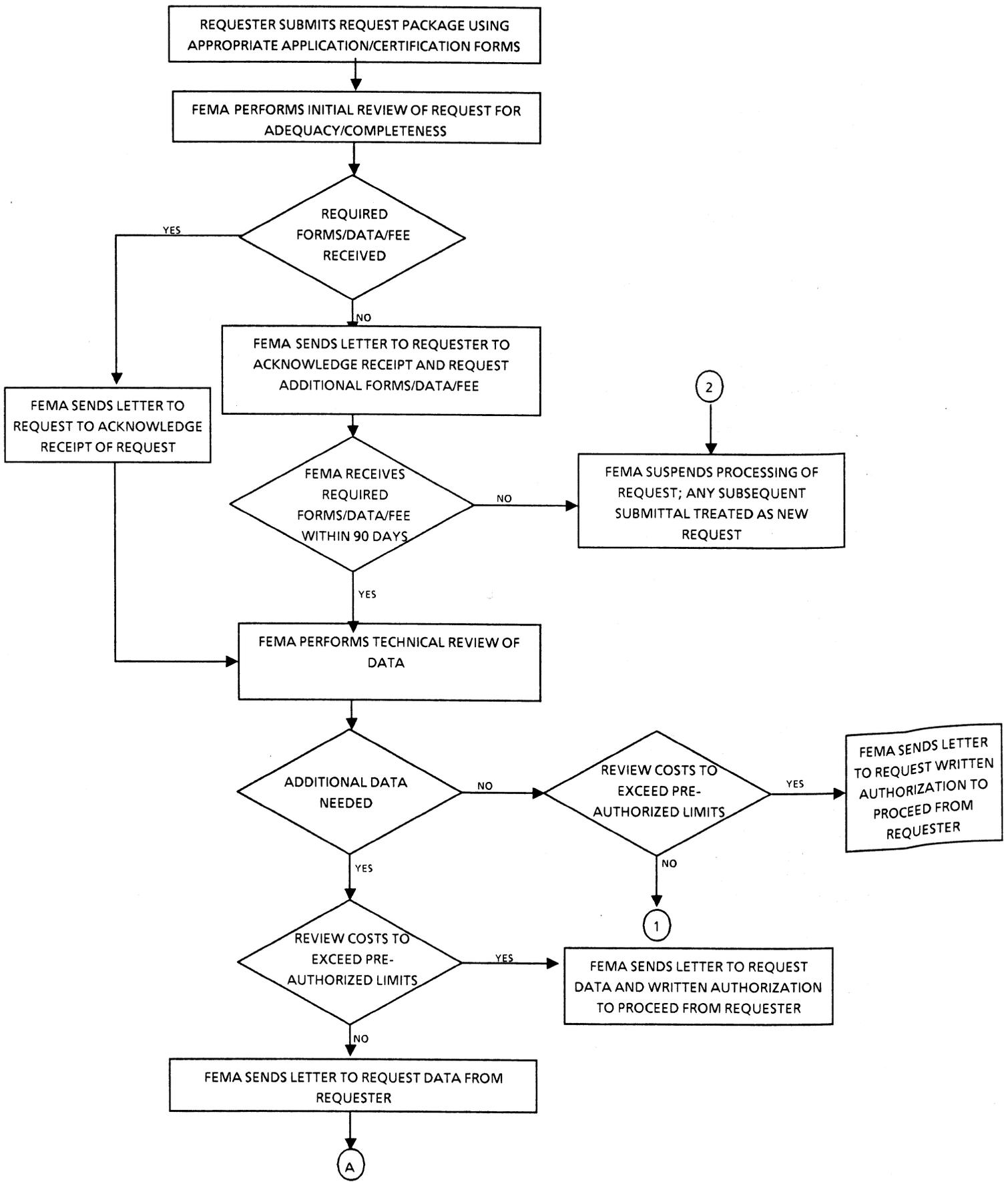


Figure 6. Procedure for Processing LOMRs and PMRs

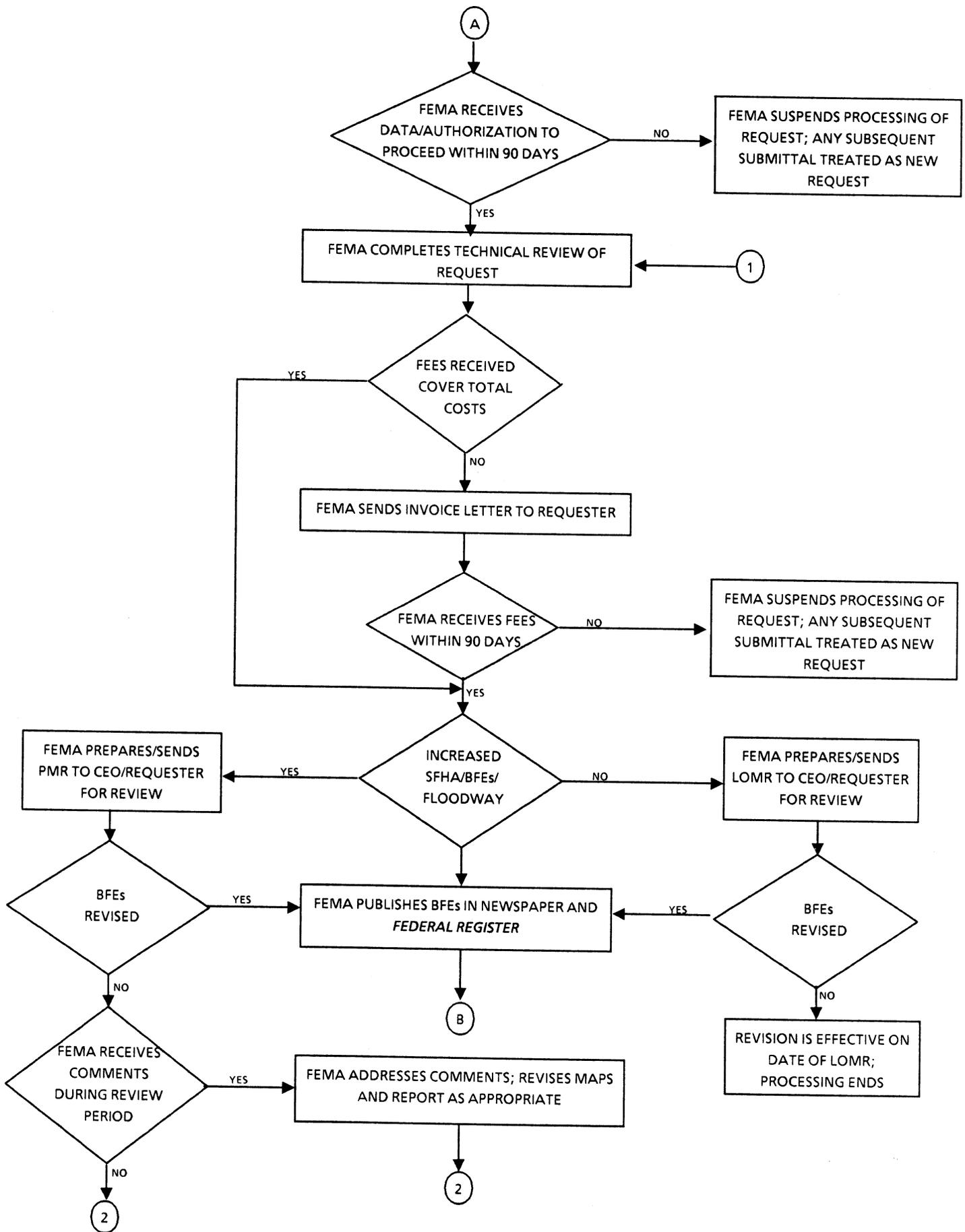


Figure 6. Procedure for Processing LOMRs and PMRs (Cont'd)

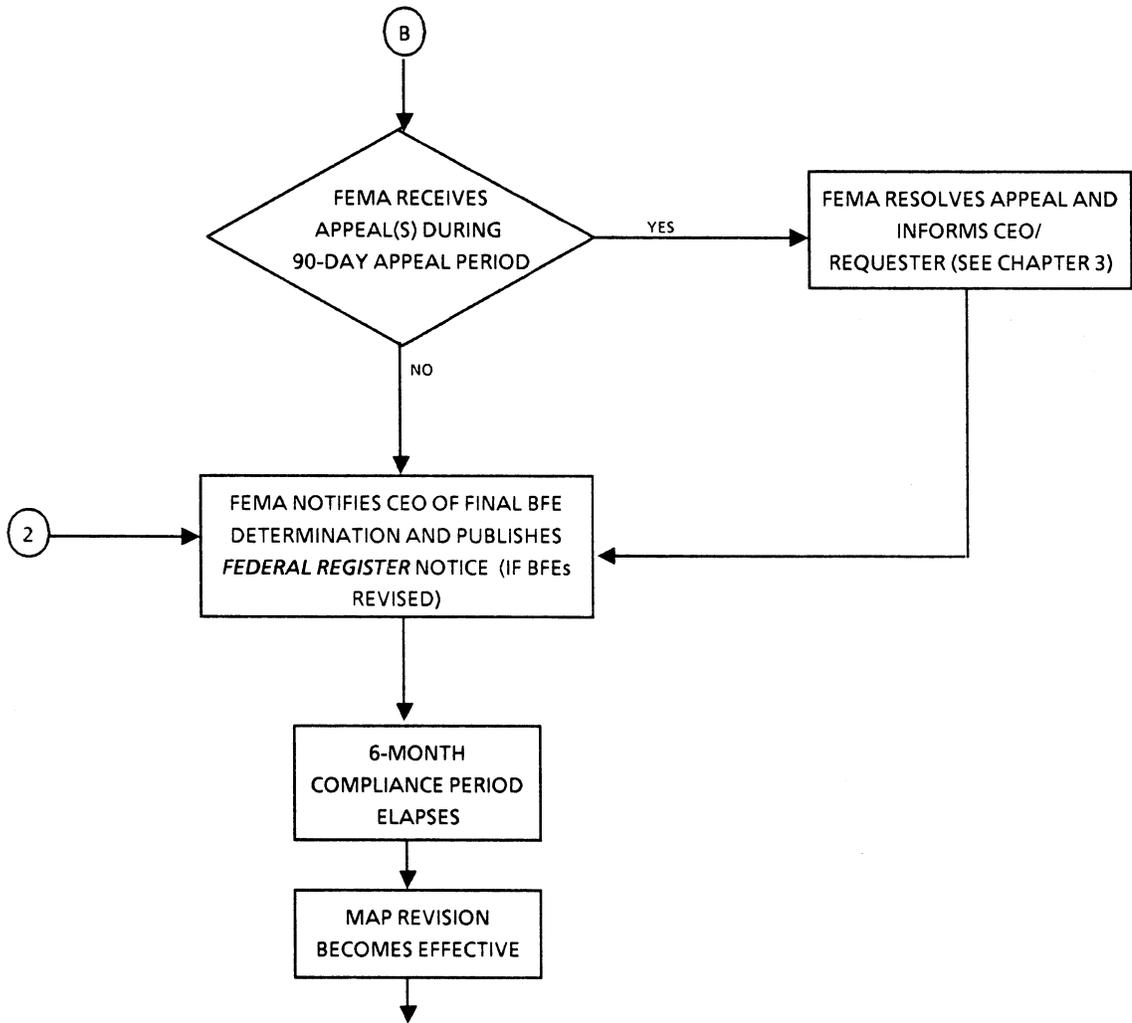


Figure 6. Procedure for Processing LOMRs and PMRs (Cont'd)

CEO and take the place of a PMR. The LOMR describes the changes that have been made and officially revises the effective NFIP map. Hand-revised maps illustrating the changes are sent with the LOMR as official attachments. The LOMR is kept in the community map repository as an official revision to the FIRM.

The revision is usually effective as of the date of the LOMR. LOMRs are generally not issued to add or raise BFEs. LOMRs that present changes to BFEs will be followed by a formal 90-day appeal period. No appeal period is necessary for LOMRs that do not involve changes to the BFEs.

As can be seen from the discussion above and by looking at Figure 6, an advantage of revising an NFIP map through the LOMR process is that the revision can become effective on the date that the LOMR is issued. By comparison, a revision made through the PMR process will not become effective until the revised map has been issued in preliminary form, passed through the appropriate review periods, printed, and distributed.

Before issuing a determination, FEMA will determine if all fees needed to cover review and cartographic production costs have been received. If additional fees are required, FEMA will send an invoice letter to the requester. In such cases, the determination will not be issued until the required fees have been received by FEMA.

Chapter 6

Map Revisions Based on Fill

Background

Often, developers and property owners place fill to elevate a structure or parcel of land. FEMA will issue a Map Revision to remove a structure elevated on fill when both the lowest adjacent grade to the structure and the lowest floor (including the basement) are at or above the BFE or when the placement of fill has elevated a legally defined parcel of land at or above the BFE. Under this process, property owners may request that FEMA determine whether specific structures or legally described parcels of land are in the SFHA and, if necessary, issue a determination, referred to as a LOMR Based on Fill (LOMR-F).

Please note that, for NFIP purposes, fill placed before the first NFIP map showing the area of question to be within an SFHA was produced is considered natural ground. To receive a determination in this case, the property owner should request a Map Amendment. (See Chapter 7.)

Application/Certification Forms

In 1992, FEMA developed the *Application/Certification Forms and Instructions for Amendments and Revisions to National Flood Insurance Program Maps* to make the LOMR-F process quicker and more efficient. These forms are discussed in more detail later in this chapter.

Fee-Reimbursement System

The NFIP is non-taxpayer funded and its expenses are paid for by policyholders. Therefore, to minimize the financial burden on the policyholders while maintaining the NFIP as self-sustaining, FEMA has implemented a procedure to recover costs associated with reviewing and processing requests for conditional and final modifications to published information and maps. Requests for LOMR-Fs for single residential lots or structures are exempt from fees, pending a determination by the Administrator of FIA of whether the LOMR-F

is being sought by an individual property owner or whether it is being requested prior to the transfer of ownership of the property in question from a developer to an individual property owner.

Requests for LOMR-Fs for multiple lots/subdivisions are subject to the fee-reimbursement procedures. The fee schedule for requests submitted on and after October 1, 1993, is provided in Appendix D.

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be gradually converting NFIP maps from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting a LOMR-F request, requesters should use the reference datum on the applicable, effective FIRM panel. For more information on the new datum, requesters should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors*. Information on how to obtain copies of this document is provided in Appendix B.

How To Request a Map Revision Based on Fill

Any owner or lessee of property may request that a determination be made concerning a structure or parcel of land where fill has been placed after the date of the first effective NFIP map and that, if appropriate, FEMA issue a LOMR-F.

Under the LOMR-F process, FEMA will make determinations for single or multiple structures on one or more lots and for parcels of land that can be legally described. In making such determinations, FEMA will use the best available data (usually the effective NFIP map) and information provided by the requester concerning the locations and elevations of structures of the locations and elevations of

legally described parcels of land. A description of the data required is provided in the *Application/Certification Forms for Revisions and Amendments to National Flood Insurance Program Maps*.

To request a LOMR-F, the requester must complete the appropriate parts of the application/certification forms. Copies of these packages may be obtained from the FEMA Headquarters or Regional Offices. (See Appendix B.) Detailed instructions for filling out this form are included with the packages.

As part of this process, the requester will be responsible for submitting the "Community Acknowledgment Form," which certifies that the community's CEO, or a community official designated by the CEO, has found that the placement of fill has met the community's applicable floodplain management regulations, including the requirement that no fill has been placed in an adopted regulatory floodway.

Required Supporting Data

For LOMR-F requests involving more than one structure or parcel of land, the requester must demonstrate that the fill placed to elevate the structures or parcels will not settle below the BFE and that fill is adequately protected from the forces of erosion, scour, or differential settlement. The application/certification form describe the specific required information in detail.

Completed application/certification forms for determinations concerning multiple structures should be sent to the FEMA Headquarters Office for processing. Completed application/certification forms for determinations concerning single structures on single lots and parcels of land should be sent to the appropriate FEMA Regional Office for processing. Addresses for the FEMA Headquarters and Regional Offices are listed in Appendix D.

Processing Procedures

After the request has been received, FEMA will acknowledge receipt of the request by letter to the requester, usually within 10 days, but not later than 60 days. This letter will identify any

basic data that the requester may have neglected to submit. If sufficient data have been provided with the request, FEMA will review the request and the supporting data. If any questions or problems arise during this review, FEMA will work with the requester to resolve them. If these required data are not provided within 90 days, FEMA will generally suspend the processing of the request.

Generally, processing of single-lot and single-structure LOMR-Fs is completed within 4 weeks of the date that all required supporting data are received. Determinations for multiple-lot and multiple-structure LOMR-Fs are generally issued within 8 weeks of the date that all data are received.

Once all necessary data are received, FEMA will complete its review and issue the appropriate determination:

- Out of the SFHA because the structure or parcel of land has been elevated above the BFE. FEMA will issue a LOMR-F to exclude the existing structure or the parcel of land from the SFHA.
- In the SFHA because the structure or parcel of land is below the BFE. If necessary, FEMA will issue a LOMR-F to include the structure in the SFHA.
- A LOMR-F for the structure only. This determination means that the structure has been found to be above the BFE and therefore out of the SFHA. However, the rest of the parcel of land is still subject to flooding and is still in the SFHA.

Before issuing the determination, FEMA will determine if all fees needed to cover review costs have been received. If additional fees are needed, FEMA will send an invoice letter to the requester. In such cases, the determination will not be issued until the required fees have been received by FEMA.

When an effective NFIP map is revised by a LOMR-F, the revision is usually effective as of the date of the LOMR-F. Copies of LOMR-Fs that revise an effective NFIP map are sent to the individual requester, the CEO of the affected community, the community map repository, the

State coordinating agency, and the appropriate FEMA Regional Office.

It should be noted that, should FEMA republish the affected map panel using the results of a contracted restudy or information from the community, the LOMR-F will no longer be valid. If the revision is of sufficient size to be shown on the revised map, it will be included. However, if the scale of the map does not allow the revision to be shown, the requester must request that FEMA re-issue the LOMR-F.

The procedures that are followed in processing requests for LOMR-Fs are shown in Figure 7.

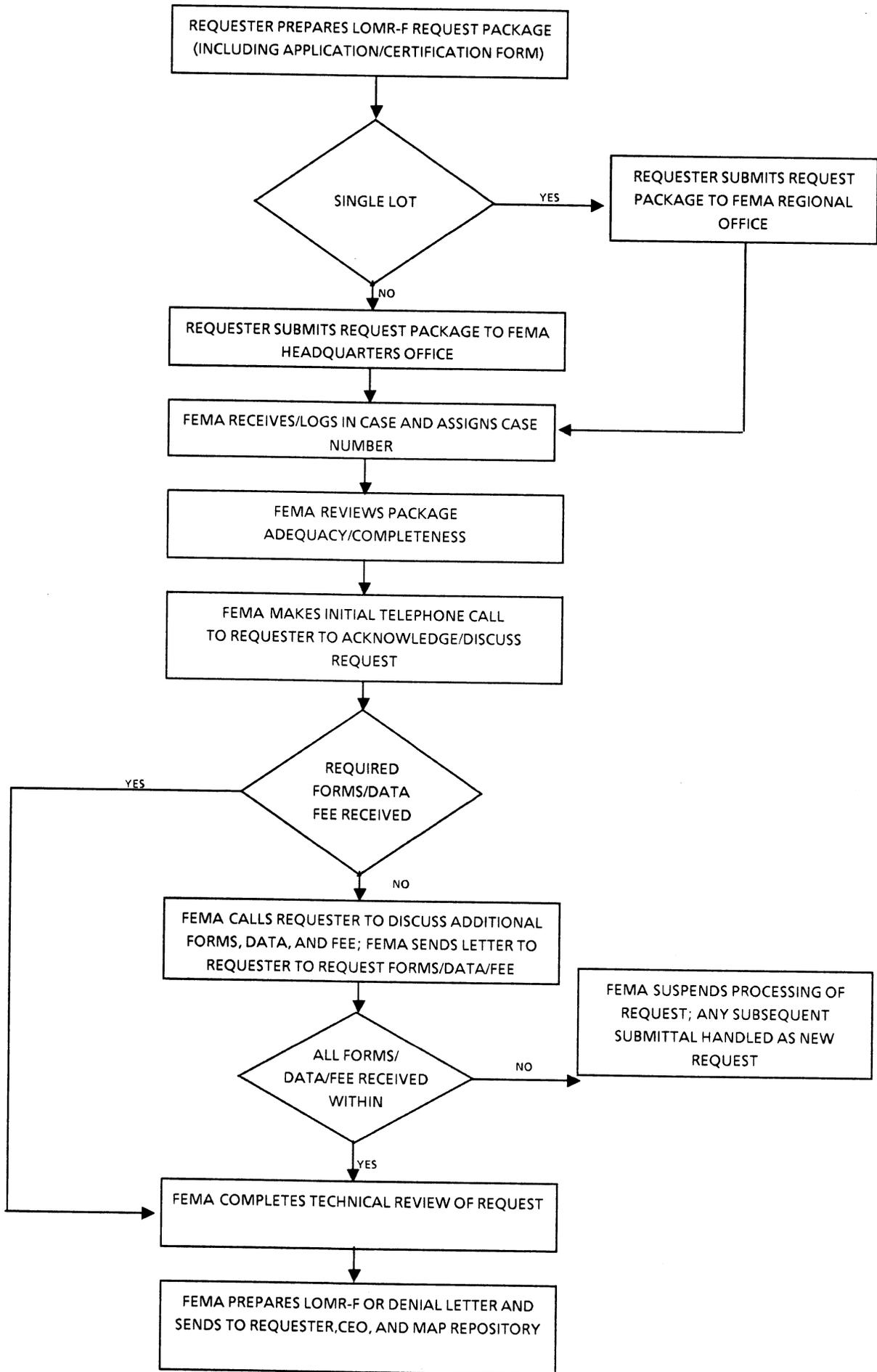


Figure 7. Procedure for Processing LOMR-Fs

Chapter 7

Map Amendments

Background

The accuracy of the floodplain boundary delineations shown on the NFIP maps depends, in part, on the scales at which the maps are prepared and by the accuracy of available topographic data. Map users may find it difficult to determine whether a specific structure or parcel of land is within the SFHA. Also, small areas of high ground may be included in the SFHA because they are too small to be shown to scale. When this happens, structures or parcels of land may be inadvertently included in the SFHA when the NFIP map is prepared.

Because the requirement for the purchase of flood insurance and the Federal and local regulations governing construction in the SFHA are important to persons who own or plan to build structures, FEMA has developed the map amendment process. Under this process, property owners may request that FEMA determine whether specific structures or legally described parcels of land are in the SFHA and, if necessary, issue a Letter of Map Amendment (LOMA).

Application/Certification Forms

In 1992, FEMA developed the *Application/Certification Forms and Instructions for Amendments and Revisions to National Flood Insurance Program Maps* to make the Map Amendment process quicker and more efficient. These forms are discussed in more detail later in this chapter.

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be gradually converting NFIP maps from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting a Map Amendment request, requesters should use the

reference datum on the applicable, effective FIRM panel. For more information on the new datum, requesters should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors*. Information on how to obtain copies of this document is provided in Appendix B.

How To Request a Map Amendment

Any owner or lessee of property may request that a determination be made concerning a structure or parcel of land and that, if necessary, FEMA issue a LOMA. Because such requests concern structures and parcels of land that were inadvertently included in the SFHA and do not involve recent alterations of topography or result in significant changes to the flooding information depicted on the NFIP map, they may be submitted directly to FEMA and are not subject to community review.

However, if the structure or land was also included in a floodway, removal of the structure or land from the floodway must be with community concurrence and is accomplished under the Map Revision process.

To request a LOMA, the requester must complete the appropriate parts of the *Application/Certification Forms for Amendments and Revisions to National Flood Insurance Program Maps*, which contains detailed instructions for filling out this form. No fees are charged for evaluating a LOMA request.

Completed application/certification forms for determinations concerning multiple structures should be sent to the FEMA Headquarters Office for processing. Completed application/certification forms for determinations concerning single structures on single lots and parcels of land should be sent to the appropriate FEMA Regional Office for processing. The addresses of the FEMA Headquarters Office and Regional Offices are listed in Appendix D.

Required Supporting Data

Under the map amendment process, FEMA will make determinations for single or multiple structures on one or more lots and for parcels of land that can be legally described. In making such determinations, FEMA will use the best available data (usually the effective NFIP map) and information provided by the requester concerning the locations and elevations of structures of the locations and elevations of legally described parcels of land. A description of the data required for a Map Amendment is provided in the *Application/Certification Forms for Amendments to Revisions and to National Flood Insurance Program Maps*.

The map amendment process is applicable only to requests for determinations based on topographic conditions that existed on the effective date of the first NFIP map that showed the structure or parcel of land to be within the SFHA. All other requests for determinations will be processed as requests for Map Revisions. (See Chapters 5 and 6.)

Processing Procedures

After the request has been received, FEMA will acknowledge receipt of the request by letter to the requester, usually within 10 days, but not later than 60 days. This letter will identify any basic data that the requester may have neglected to submit. If sufficient data have been provided with the request, FEMA will review the request and the supporting data. If any questions or problems arise during this review, FEMA will work with the requester to resolve them. If these required data are not provided within 90 days, FEMA will generally suspend the processing of the request.

Generally, processing of single-lot and single-structure LOMAs are issued within 4 weeks of the date that all required supporting data are received. Multiple-lot and multiple-structure LOMAs are generally issued within 8 weeks of the date all data are received.

Once all necessary data and forms are provided, FEMA will complete its review and issue the appropriate determination:

- Out of the SFHA as shown on the effective FEMA map. No amendment to the map is necessary.
- Out of the SFHA because the structure or parcel of land is above the BFE (inadvertent inclusion). FEMA will issue a LOMA to exclude the existing structure or the parcel of land from the SFHA.
- In the SFHA because the structure or parcel of land is below the BFE. If necessary, FEMA will issue a LOMA to include the structure in the SFHA.
- A LOMA for the structure only. This determination means that the structure has been found to be above the BFE and therefore out of the SFHA. However, the rest of the parcel of land is subject to flooding and is still in the SFHA.

When an effective NFIP map is amended by a LOMA, the Map Amendment is usually effective as of the date of the LOMA. Copies of LOMAs that amend an effective map are sent to the individual requester, community map repository, State coordinating agency, and appropriate FEMA Regional Office.

It should be noted that, should FEMA republish the affected map panel using the results of a contracted restudy or information from the community, the LOMA will no longer be valid. If the amendment is of sufficient size to be shown on the revised map, it will be included. However, if the map scale does not allow the amendment to be shown, the requester must request that FEMA re-issue the LOMA.

The procedures that are followed in processing requests for LOMAs are presented in Figure 8.

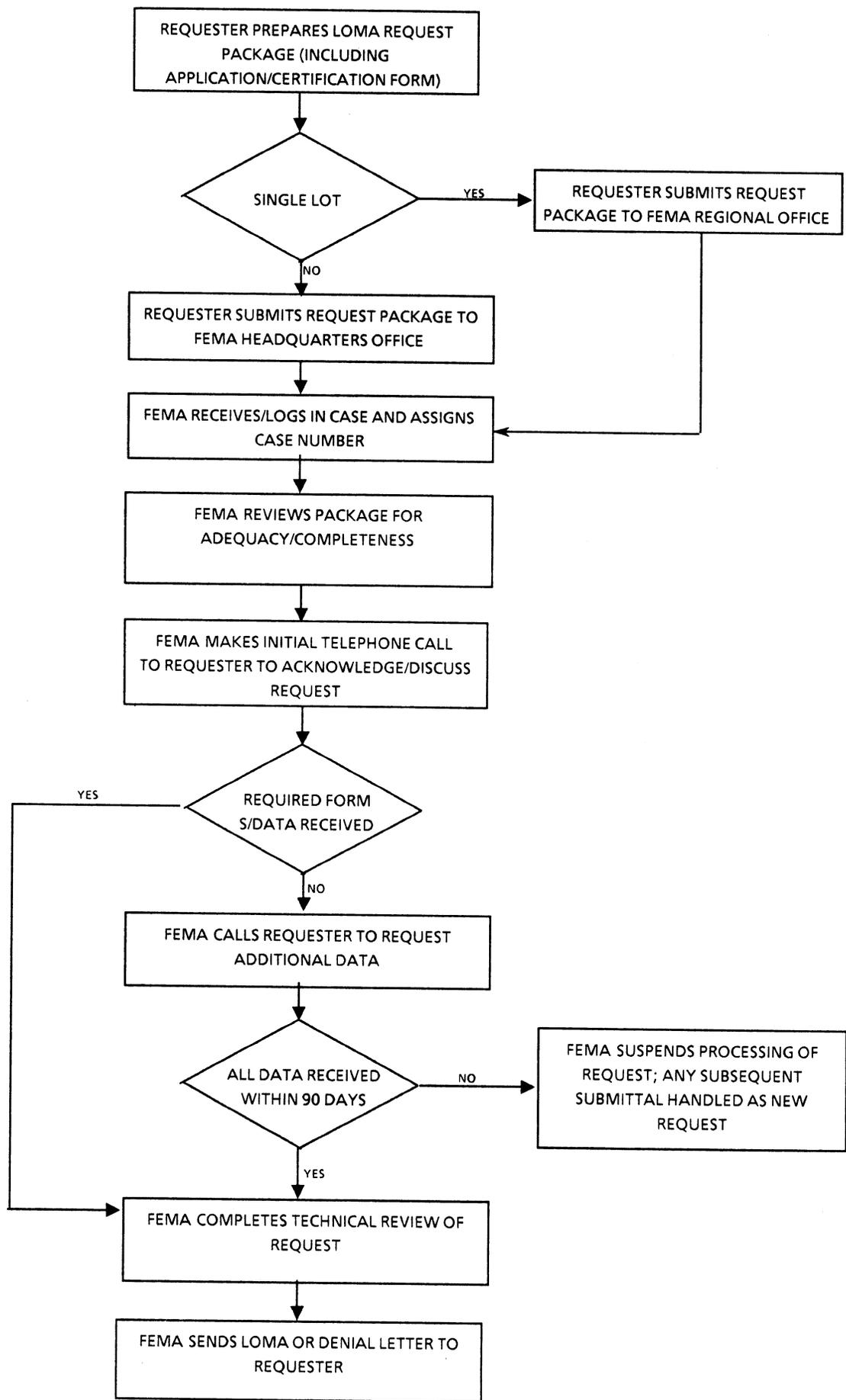


Figure 8. Procedure for Processing LOMAs

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Chapter 8

Conditional Revisions and Amendments

Background

Communities, regional agencies, developers, and individual property owners often undertake floodplain modifications intended to reduce the flood risk in specific areas. Such modifications can range in scope from the simple placement of fill to large-scale flood protection projects to infrastructure improvements, such as bridge and road construction. Before proceeding with such modifications, those who propose them often wish to receive some assurance from FEMA that the modifications may eventually be credited with providing 100-year flood protection under the NFIP.

In carrying out their responsibilities under the NFIP, community officials may wish to have FEMA verify that such modifications will not aggravate existing flood hazards. In addition, developers and property owners who intend to construct buildings in or near an SFHA usually must prove to lending institutions and local officials that the placement of fill or other modifications will ensure that, after the buildings are constructed, they will not be within the SFHA.

It has become common practice for persons who are planning to undertake floodplain modifications to submit design plans and other engineering data to FEMA and request that FEMA review them. FEMA responses to such requests are to provide comments concerning changes that may eventually be made to the effective NFIP map. These comments are issued in the form of letters, called Conditional Letter of Map Revisions (CLOMRs).

For communities that propose floodplain modifications, requesting CLOMRs is not only prudent but, in some circumstances, required by the NFIP regulations. (See Section 65.12.) When a participating community proposes to permit an encroachment into a 100-year floodplain where no floodway has been established, and the encroachment will cause an increase of more than 1.0 foot in the BFE, the community must

first obtain FEMA's conditional approval of the proposed encroachment under the conditional map revision process. Similarly, the community must also obtain conditional approval from FEMA before permitting an encroachment into a regulatory floodway that could cause any increase in flood levels.

Another common practice is for persons who are planning to place fill on single or multiple lots to request that FEMA determine whether the placement of fill will elevate their structure or structures out of the SFHA. FEMA responds to such requests with letters called CLOMRs Based on Fill (CLOMR-Fs).

A less common practice is for persons who intend to build on single or multiple lots to request that FEMA determine whether the structure or structures, which will not be placed on fill, will be excluded from the SFHA as shown on the effective NFIP map. FEMA responds to such requests with letters called Conditional Letter of Map Amendments (CLOMAs).

With the exception of the federally funded flood protection systems discussed in Chapter 10, floodplain modifications that have not been completed do not warrant revisions to effective NFIP maps. Therefore, unlike Map Revisions and Map Amendments, CLOMRs, CLOMR-Fs, and CLOMAs do not actually revise an effective NFIP map. Once a project is completed, it is the requester or community's responsibility to ensure that "as-built" information is submitted to FEMA for a LOMR, LOMR-F, or LOMA to be issued.

The procedures that are followed in processing CLOMRs, CLOMR-Fs, and CLOMAs are presented in Figure 9.

Application/Certification Forms

In 1992, FEMA developed the application/certification forms to make the CLOMR, CLOMR-F, and CLOMA process quicker and more efficient. These forms are discussed in more detail later in this chapter.

Fee-Reimbursement System

The NFIP is non-taxpayer funded and its expenses are paid for by policyholders.

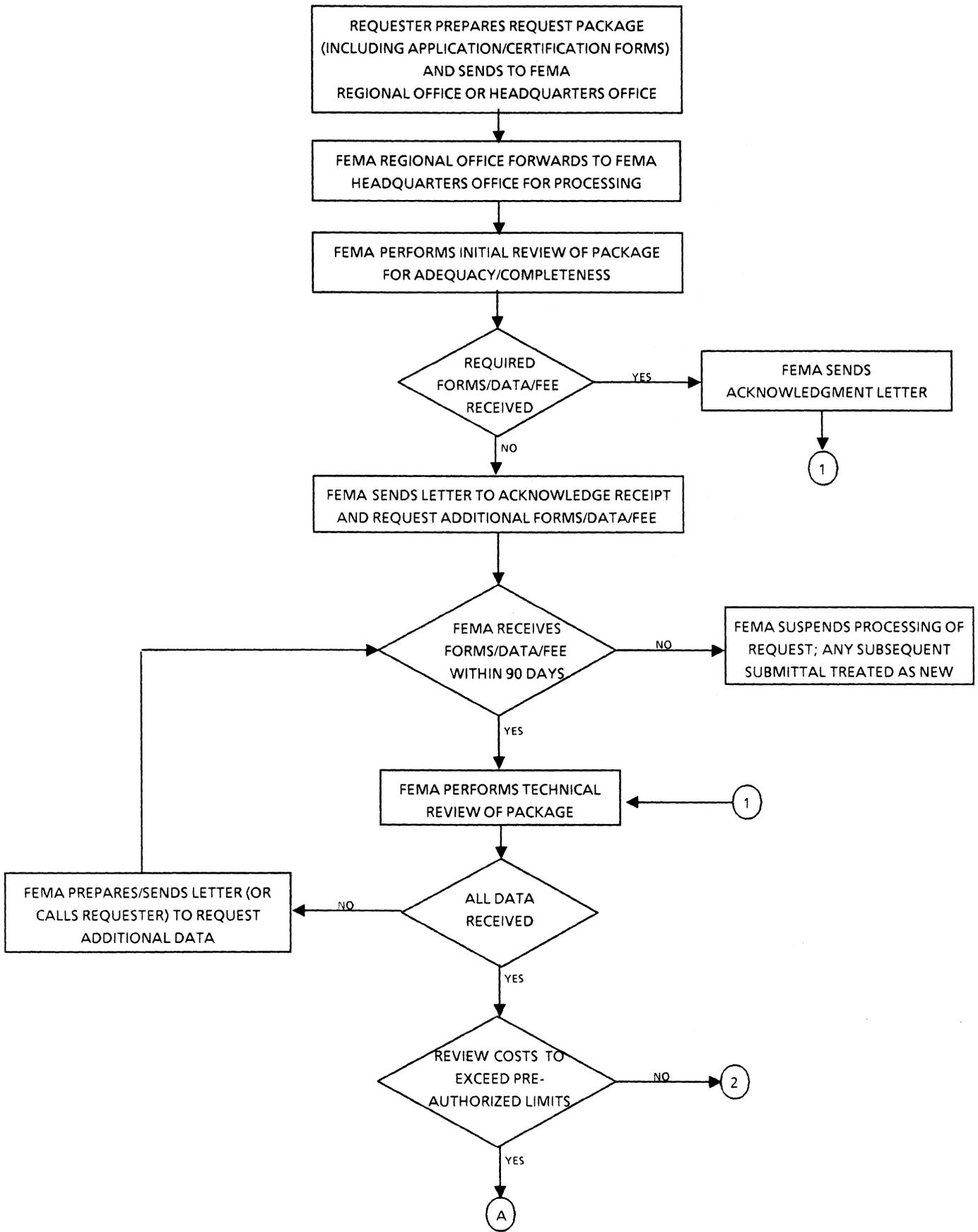


Figure 9. Procedure for Processing CLOMRs, CLOMR-Fs, and CLOMAs

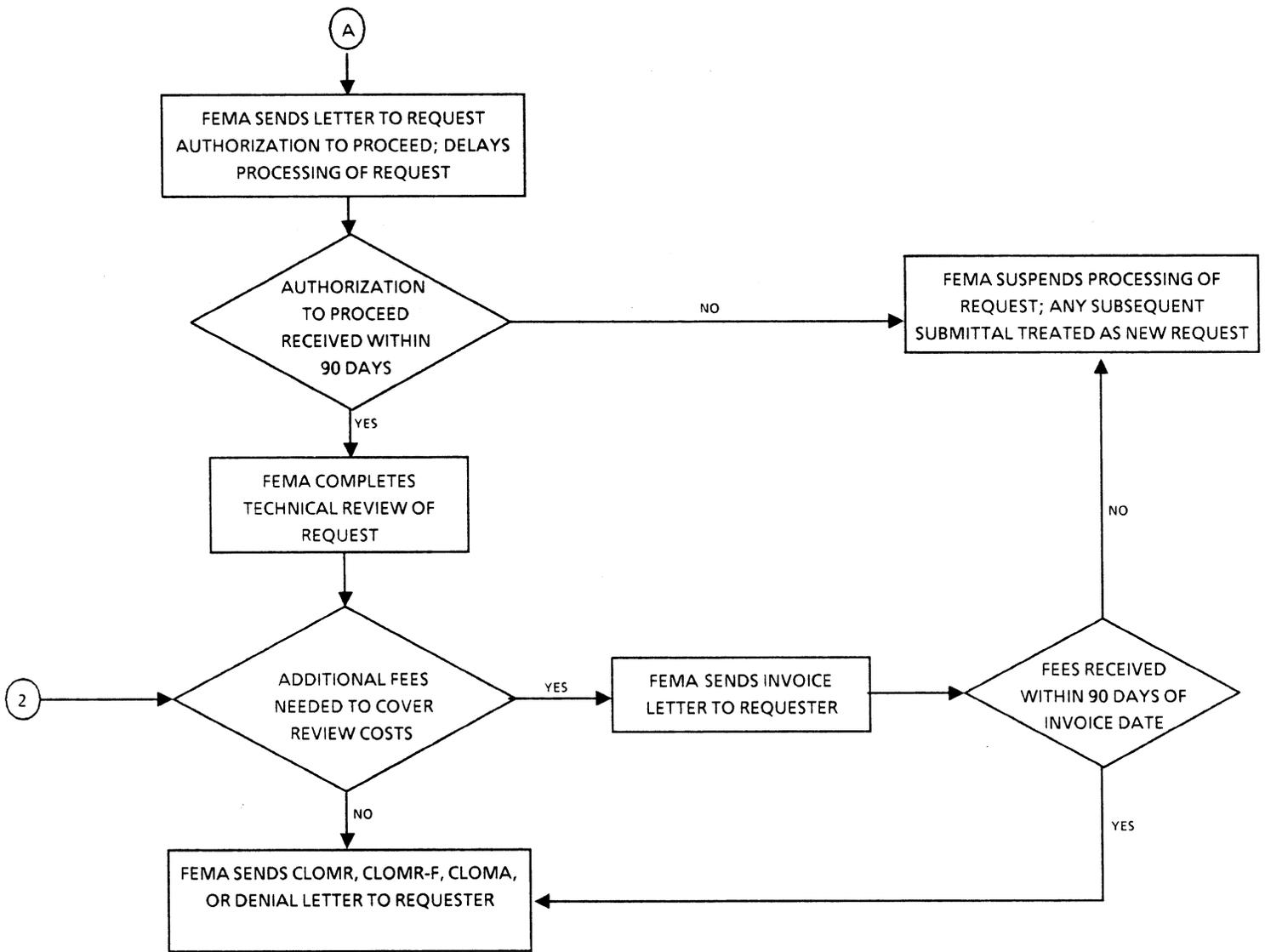


Figure 9. Procedure for Processing CLOMRs, CLOMR-Fs, and CLOMAs (Cont'd)

Therefore, to minimize the financial burden on the policyholders while maintaining the NFIP as self-sustaining, FEMA has implemented a procedure to recover costs associated with reviewing and processing requests for conditional and final modifications to published information and maps. The specific fees that are to be reimbursed to FEMA for requests submitted on and after October 1, 1993, are listed in Appendix D.

Although many proposed flood protection projects are intended to reduce flood hazards so that floodplain areas can be developed, FEMA recognizes that projects undertaken by Federal, State, and local governments are often intended to reduce the risks to lives and property in areas that have already been developed. Because projects of the latter type will benefit the general public and the NFIP by protecting existing development from future floods, fees are not charged for conditional determinations for such projects.

Therefore, when a Federal, State, or local government or its agency requests a CLOMR, it may submit, in lieu of the required fees, a certification that the proposed project is intended primarily to reduce flood losses to existing development in identified flood hazard areas and request that the fee be waived. If appropriate, FEMA will waive the fee requirement. (See Appendix C for more details on the projects that qualify for fee exemptions.)

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be gradually converting NFIP maps from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting a Conditional Map Revision or Conditional Map Amendment request, requesters should use the reference datum on the applicable, effective FIRM panel. For more information on the new datum, requesters should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988*,

Guidelines for Community Officials, Engineers, and Surveyors. Information on how to obtain copies of this document is provided in Appendix B.

How To Request a CLOMR

A CLOMR may be requested at any time, either by a community or a private party. To request a CLOMR, the *Application/Certification Forms for Map Revisions to National Flood Insurance Program Maps* must be used. Copies of these forms may be requested from the FEMA Headquarters or Regional Offices. Completed application/ certification forms are to be submitted to the FEMA Regional or Headquarters Office.

Because the CEO of the community is responsible for ensuring that the community meets its obligations as a participant in the NFIP, either the CEO or a community official designated by the CEO (e.g., floodplain administrator, city planner, or city engineer) should be aware of proposed floodplain modifications that could eventually affect flooding conditions within the community. Therefore, any individual property owner, developer, or other private party who wishes to request a CLOMR should submit the request to the CEO or the designated community official. Upon completion of the community review, the CEO or designated official will forward the request to the FEMA Regional Office.

Required Supporting Data for CLOMRs

The main difference between the types of supporting data required for LOMRs (see Tables 1, 2, and 3) and CLOMRs is that any maps, plans, drawings, measurements, or ground elevation data submitted in support of a request for a CLOMR will not reflect existing conditions and consequently cannot be certified "as-built." In addition, the operations and maintenance plans that are to be formally adopted by a community, which are part of the required supporting information for a LOMR request based on the effects of a levee or other flood protection system, are not required when a request is made for a CLOMR.

All data submitted in support of a request for a CLOMR must, however, reflect final design conditions. The requester should not interpret the lack of a requirement for certified as-built supporting data to mean that incomplete data and vague descriptions of proposed projects will provide FEMA with an adequate basis for a conditional determination. In addition, although an as-built certification would not apply to design plans and other supporting data for a CLOMR, all data submitted must still be stamped and signed with the seal of a registered professional engineer or licensed land surveyor, as appropriate.

Processing Procedures for CLOMRs

In its review of a CLOMR request, FEMA will acknowledge receipt of the request by letter and, if necessary, by telephone to the person who submitted the request. If that person is a private party, copies of all letters to that person from FEMA will be sent to the CEO.

After a CLOMR request has been received from the CEO or private party, FEMA will perform a preliminary review of the request and the supporting data submitted with it. The purpose of this review is to determine whether the necessary forms, data, and initial fee or fee waiver have been provided and, if a private party submitted the request to FEMA, whether the community is aware of the request.

If the required supporting forms, data, or fee/fee waiver have not been provided, FEMA will send a letter to the party that submitted the request. This letter will identify any forms, supporting data, or fee that the requester has not submitted. Until the requested forms, data, and/or fee are submitted, FEMA will not undertake a detailed review of the request and will not take any further action concerning the request.

If FEMA determines from its preliminary review that the basic supporting data have been provided and that either the required initial fee has been provided or the fee requirement has been waived, FEMA will then inform the requester of the amount of time that FEMA will need to complete a detailed review of the request and supporting data.

After completing its detailed review, FEMA will inform the requester by letter of any additional supporting data that must be submitted as appropriate. Again, no further action will be taken on the request until the required supporting data are received.

Once all required data have been provided, FEMA will complete its review and make a determination concerning the effects of the proposed modifications. FEMA will issue either a CLOMR, which describes the changes that could be made to the FIRM and/or FBFM after the proposed modifications are complete, or a letter that explains why FEMA could not recognize the effects of the proposed modifications if those modifications were completed as planned.

Before issuing the determination, FEMA will determine if all fees needed to cover review costs have been received. If additional fees are needed, FEMA will send an invoice letter to the requester. In such cases, the determination will not be issued until the required fees have been received by FEMA.

How To Request a CLOMR-F

To request a CLOMR-F, the *Application/Certification Forms for Amendments and Revisions to National Flood Insurance Program Maps* must be used. Copies of these forms may be requested from the FEMA Headquarters or Regional Offices. Completed application/certification forms should be submitted to the FEMA Regional or Headquarters Office.

Required Supporting Data for CLOMR-Fs

The supporting data required for CLOMR-Fs are the same as required for LOMR-Fs. For a more complete description of these data, the reader should refer to the application/certification forms.

Processing Procedures for CLOMR-Fs

In its review of a CLOMR-F request, FEMA will acknowledge receipt of the request by letter and, if necessary, by telephone to the person

who submitted the request. After a CLOMR-F request has been received, FEMA will perform a preliminary review of the request and the supporting data submitted with it. The purpose of this review is to determine whether the necessary data and initial fee or fee waiver have been provided. If the required supporting data or fee/fee waiver have not been provided, FEMA will send a letter to the party that submitted the request. This letter will identify any supporting data, including the initial fee, that the requester has not submitted. Until the requested data and/or fee are submitted, FEMA will not take any further action concerning the request.

If FEMA determines from its preliminary review that the necessary forms and the basic supporting data have been provided and that either the required initial fee has been provided or is waived, FEMA will then inform the requester of the amount of time that FEMA will need to complete a detailed review of the request and supporting data.

After completing its detailed review, FEMA will inform the requester by telephone of any additional supporting data that must be submitted. Again, no further action will be taken on the request until the required supporting data are received.

Once all required data have been provided, FEMA will complete the review and make a determination concerning the effects of the proposed placement of fill. FEMA will issue either a CLOMR-F, which states that the structure or structures will not be in the SFHA if fill is placed as proposed, or a letter that explains why FEMA could not recognize the effects of the proposed placement of fill if placement was completed as planned.

Before issuing the determination, FEMA will determine if all fees needed to cover review costs have been received. If additional fees are needed, FEMA will send an invoice letter to the requester. In such cases, the determination will not be issued until the required fees have been submitted.

How To Request a CLOMA

To request a CLOMA, the *Application/Certification Forms for Amendments and Revisions to National Flood Insurance Program Maps* must be used. Copies of these forms may be requested from FEMA's Headquarters or Regional Offices. All completed application/certification forms for determinations should be sent to the FEMA Regional or Headquarters Office.

Required Supporting Data for CLOMAs

The types of supporting data required for CLOMAs are the same as those required for LOMAs. For a more complete description of these data, the reader should refer to the application/certification forms.

Processing Procedures for CLOMAs

In its review of a CLOMA request, FEMA will acknowledge receipt of the request by letter and, if necessary, by telephone to the person who submitted the request. After a CLOMA request has been received, FEMA will perform a preliminary review of the request and the supporting data submitted with it. The purpose of this review is to determine whether the necessary data and initial fee or fee waiver have been provided. If the required supporting data or fee/fee waiver have not been provided, FEMA will send a letter to the party that submitted the request. This letter will identify any supporting data, including the initial fee, that the requester has not submitted. Until the requested data and/or fee are submitted, FEMA will not take any further action concerning the request.

If FEMA determines from its preliminary review that the basic supporting data have been provided and that either the required initial fee have been provided or the fee requirement is waived, FEMA will then inform the requester of the amount of time that FEMA will need to complete a detailed review of the request and supporting data.

After completing its detailed review, FEMA will inform the requester by telephone of any additional supporting data that must be submitted. Again, no further action will be taken on the request until the required supporting data are received.

Once all required data have been provided, FEMA will complete the review and make a determination concerning the CLOMA request. FEMA will issue either a CLOMA, which states that the structure or structures will not be in the SFHA if built as proposed, or a letter that explains why FEMA could not exclude the structure if completed as planned. These letters are sent to the individual who requested the determination.

Before issuing the determination, FEMA will determine if all fees needed to cover review costs have been received. If additional fees are needed, FEMA will send an invoice letter to the requester. In such cases, the determination will not be issued until the required fees have been submitted.

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Chapter 9 Floodway Revisions

The floodways shown on NFIP maps are developed as part of detailed FISs and RFISs and are adopted by communities for use in establishing sound floodplain management programs. By restricting development in the floodway, a community can preserve the conveyance area necessary for the passage of floodwaters and avoid significant increases in flood elevations.

Although the boundaries of the floodway are intended to remain unchanged once they are established and adopted by the community, the community may find it necessary in response to extraordinary circumstances to change the configuration of the floodway.

Background

Although fill may be placed or construction carried out in floodplains in such a way that the flood hazards to the new development will be minimal, the effect of such activities on existing development, both upstream and downstream, must be considered. Encroachments, such as construction and placement of fill, within the 100-year floodplain can increase flood levels by blocking areas of the floodplain that would otherwise be open and able to convey floodwaters.

To achieve a balance between any benefits to be gained from floodplain development and the resulting increase in flood hazards, and to help communities regulate such development and avoid significant increases in BFEs, FEMA establishes floodways. The limits of the floodway are determined through a hydraulic analysis in which the increase in the BFE (the surcharge) due to encroachment within the 100-year floodplain is calculated.

FEMA has established as a standard a maximum allowable surcharge of 1.0 foot. Because the surcharge generally increases as the amount of encroachment increases, setting a limit on the magnitude of the surcharge sets limits on the amount of encroachment that may take place. A floodway based on a maximum allowable

surcharge of 1.0 foot is therefore the channel of a stream plus the portion of the floodplain adjacent to it that must be kept free of encroachment so that the entire 100-year flood can discharge with no greater than a 1.0-foot increase in the BFE.

The portions of the floodplain outside the floodway are referred to as the floodway fringe. Once a floodway has been established, the community may allow development in the floodway fringe with the assurance that flood hazards will not be increased significantly. However, all such development must meet the minimum floodplain management standards required for participation in the NFIP.

Several States have adopted requirements that limit the allowable surcharge to less than 1.0 foot. For States that have adopted more stringent standards by legally enforceable statutes or regulations, FEMA computes floodways using those standards. In addition, some individual communities have established and enforce more stringent standards. Although the NFIP maps for such communities usually depict floodways based on a 1.0-foot surcharge, FEMA encourages the adoption of more stringent standards.

Once a floodway has been adopted by the community, any encroachments within the floodway that would increase the BFEs during the 100-year flood are prohibited. Such encroachments could include fill, new construction, substantial improvements, and other types of development.

In this Guide, when a 1.0-foot surcharge is referred to, the assumption has been made that there is no more stringent State or local surcharge standard. Where such a standard exists, the allowable surcharge is limited to that standard. In addition, where a stream with a regulatory floodway forms the boundary between two communities or two States, the allowable increase in the BFE due to encroachment in one community or State is limited to 0.5 foot, unless a more stringent State standard has been established.

Floodways are developed for streams studied by detailed methods as part of the hydraulic analyses performed for those streams. The most

common method that FEMA uses to develop floodways is referred to as the "equal conveyance reduction method," in which the hydraulic computer model is modified so that equal amounts of hydraulic conveyance are eliminated from opposite sides of the 100-year floodplain until the allowable increase in the BFE is reached.

When it is necessary to develop floodways with specific configurations requested by the community, unequal reductions of conveyance area may be used. A floodway is a reasonable depiction of the area that must be kept open to convey floodwaters and is not necessarily the minimum area required to meet FEMA or State standards.

Once adopted by the community, a particular floodway configuration becomes administratively established and the limits of the floodway are intended to remain unchanged. However, in one situation, a community must request conditional approval of a floodway revision; in two other situations, a community may find it necessary to request a floodway revision, as explained below.

A community must request a Floodway Revision before permitting an encroachment into a regulatory floodway that would cause any increase in flood levels. Before FEMA can grant such a request, the community must apply to FEMA for conditional approval of the proposed project. The data the community must submit in support of such an application, and the procedures FEMA will follow in reviewing and responding to the application, are discussed in Chapter 8.

A community may request a floodway revision in the following situations:

- When an Appeal or a Map Revision results in changes to effective BFEs
- When, for good cause, the community wishes to shift the floodway or change its configuration in some way

Appeals and Map Revisions that result in changes to BFEs are generally supported by new or revised hydraulic analyses that involve modification of the original hydraulic computer

model. Because the floodway is developed with that model and the floodway width depends on a specified increase in the BFEs, changes to floodways may be a part of any Appeal or Map Revision that results in changes to BFEs.

Application/Certification Forms

In 1992, FEMA developed the *Application/Certification Forms and Instructions for Revisions to National Flood Insurance Program Maps* to make the Floodway Revision process quicker and more efficient. These forms are discussed in more detail later in this chapter.

North American Vertical Datum of 1988

Because the National Geodetic Survey has determined that the national vertical control network needs to be readjusted, FEMA will be gradually converting NFIP maps from the old national datum, National Geodetic Vertical Datum of 1929 (NGVD), to a new national datum, North American Vertical Datum of 1988 (NAVD 88). Therefore, when submitting a Floodway Revision request, requesters should use the reference datum on the applicable, effective FIRM panel. For more information on the new datum, requesters should refer to *Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors*. Information on how to obtain copies of this document is provided in Appendix B.

How To Request a Floodway Revision

A Floodway Revision request may be submitted during the 90-day appeal period or after the NFIP map on which the floodway is shown has become effective. Requests submitted during the appeal period will be handled as Protests. (See Chapter 4.) Requests submitted after the effective date of the NFIP map will be handled under the map revision process.

Because the community selects and adopts the floodway, all requests for changes to floodways must be made or approved by the community. FEMA will not revise a floodway without the

approval of the community. Because the CEO of the community is responsible for ensuring that the community meets the obligation to regulate floodways, FEMA will work with the CEO or a local official designated by the CEO, such as a city planner or city engineer, in evaluating requests that involve changes to floodways.

For this reason, any individual property owner, developer, or other person who wishes to request a map change that involves the floodway must fill out the *Application/Certification Forms for Revisions to National Flood Insurance Program Maps*, and must have the community CEO or a designated official approve this requested change by completing the appropriate sections of the Revision Requester and Community Official Form of the application/certification forms.

Required Supporting Data

Floodway Revisions cannot be made without adequate supporting data. (Table 4 lists the types of supporting data required to support Floodway Revisions.) Because many States require communities to follow administrative procedures for establishing and revising floodways and because the limits of the floodway are established through engineering analyses, both legal documentation and technical data must be submitted. In addition, it is important to note that as the floodway fringe is developed, an increasing amount (if not all) of the allowable surcharge is used. Therefore, a revised floodway must be configured in such a way that it will continue to convey the 100-year flood discharge with no greater than a 1.0-foot increase in the original BFEs (i.e., the BFEs on which the unrevised floodway is based) at any point. If the floodway revision is part of a revision that results in BFEs lower than those on the map that is to be revised, the 1.0-foot surcharge limit applies to those lower BFEs.

Processing Procedures

Because requests for Floodway Revisions may be part of either an Appeal or a Map Revision that results in changes to BFEs, or may be submitted independently as Map Revision requests that involve only the floodway, requests are handled according to the procedures detailed in Chapters

3 and 5, respectively. However, if a request submitted during the 90-day appeal period involves a change to the BFEs, it will be handled as an Appeal; if a request submitted during the 90-day appeal period does not involve a change to the BFEs, it will be handled as a Protest. An Appeal or Protest will then be handled as described below.

After receiving the request, FEMA will send an acknowledgment letter to the CEO. If the request is submitted by a private party, a copy of the acknowledgment letter will be sent to the requester. During its review of the request, FEMA will communicate by letter with the CEO or the community official designated by the CEO. If the request was submitted by a private party, copies of all letters will be sent to the requester.

If FEMA determines that it needs additional data to support the request, it will request data by letter. The letter will be sent to the CEO. To avoid spending time reviewing poorly documented requests, FEMA allows 30 days for the CEO to provide the requested data.

If the data are not provided within the allotted time, FEMA will complete the review using the data originally submitted. If the requested data are provided, FEMA will consider them in its review.

After reviewing all the supporting data, FEMA will determine whether the revision is warranted. If no revision is warranted, FEMA will inform the CEO by letter that the request is denied. If a revision is warranted, the revised floodway will be incorporated into the map at the time it is printed. The revised floodway data will be incorporated into the FIS report at the same time.

Table 4. Data Required To Support Floodway Revisions^a

	Floodway Revisions Made as Part of an Appeal or Map Revision ^b	Floodway Revisions Made Independently of an Appeal or Map Revision ^b
Copy of public notice stating community's intent to revise floodway and statement that community has notified any affected property owners or adjacent jurisdictions	•	•
Copy of letter notifying the State of revisions to floodway ^b	•	•
Documentation of approval of revised floodway by appropriate State agency (for communities where State has jurisdiction over floodway or its adoption by communities participating in the NFIP)	•	•
Original hydraulic computer model modified so that it includes all encroachments that have occurred in floodplain since original floodway was developed		•
Floodway analysis performed for desired floodway limits with: Hydraulic computer model used for determination of new BFEs for the Appeal or Map Revision ^c Modified computer model ^c	•	•
Floodway limits set up so that the combined effects of past encroachment, the changes on which the Appeal or Map Revision is based, and the new floodway limits do not increase the original BFEs or those resulting from the Appeal or Map Revision by more than the amount allowed by FEMA and the State ^c	•	
Floodway limits set up so that the combined effects of past encroachment and the new floodway limits do not increase the original BFEs by more than the amounts allowed by FEMA and the State ^c		•
Delineation of revised floodway: On same topographic map used for delineation of the revised floodplain boundaries resulting from the Appeal or Map Revision On a copy of the effective NFIP map	•	•

^a Because the required data will vary with each individual request, requesters should refer to the Application/Certification Form Package for details. Data other than those shown in the table may be requested.

^b All analyses and data submitted must be certified by a registered professional engineer; survey data must be certified by a licensed land surveyor.

^c Letter is required only when the state has jurisdiction over the floodway or its adoption.

^d Copies of input and output data from the original, modified, and floodway computer models must be submitted.

Chapter 10

Revisions Based on Adequate Progress

Background

In general, FEMA will not revise an effective NFIP map to show the effects of physical changes that will occur in the floodplain as a result of proposed projects or future conditions. Most requests concerning such changes are handled under the conditional map revision process as described in Chapter 8.

However, a revision may be issued based on the ultimate effect of a flood protection system that is under construction at the time of the request and involves Federal funds.

Required Supporting Data

To support a request for such a revision, the requester must submit the data below to show that the requirements of Section 61.12 of the NFIP regulations have been met.

- Evidence that adequate progress has been made on construction:
 - Evidence which shows that 100 percent of the total cost of the complete system has been authorized
 - At least 60 percent of the total cost has been appropriated
 - At least 50 percent of the total cost has been expended
 - All critical features are under construction and each is 50 percent completed as measured by the expenditure of budget funds
 - Evidence that the community has not been responsible for any delay in the completion of the system
- A complete statement of all relevant facts concerning the flood protection system, including, but not limited to,

supporting technical data, cost schedules, budget appropriation data, and extent of Federal funding of the construction of the system. The statement must also include:

- Information that identifies all persons affected by the system
- A full and precise statement of the purpose of the system
- A detailed description of the system, including construction completion dates
- True copies of all contracts, agreements, leases, instruments, and other documents related to the system
- Analysis that shows how the statement of facts (bullet 2) and the documents (bullet 3) bear on the evidence of adequate progress (bullet 1)
- Statement of whether the flood protection system is the subject of litigation before any Federal, State, or local court or administrative agency and, if so, the purpose of the litigation
- Statement of whether the community has previously requested a determination concerning the same subject and, if so, the disposition of that request

In addition, the requester will be required to submit technical data similar to those detailed in Chapter 5.

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Chapter 11

Zone AR

Legislation passed in October 1992 amended the National Flood Insurance Act of 1968 and established a flood restoration zone, termed Zone AR. The Zone AR designation was created so that a community participating in the NFIP with a discredited flood protection system can allow development to continue, using less stringent floodplain management requirements, and property owners may receive a lower insurance premium while the system is being restored. To be eligible for the Zone AR designation, the community must show that:

- The flood protection system has been deemed restorable by a Federal agency in consultation with the local project sponsor.
- A minimum level of flood protection is still provided to the community by the discredited system.
- The restoration of the flood protection system is scheduled to occur within a designated time period and in accordance with a progress plan negotiated between the community and FEMA.

If a community meets these criteria and officially requests the Zone AR designation, FEMA will prepare a revised FIRM delineating those portions of the community affected by flooding as a result of the discredited system. During the 6-month compliance period, the community will be responsible for enacting the floodplain management ordinances applicable to development within Zone AR.

The legislation signed into law provides interim floodplain management, mapping, and insurance guidelines and indicates that FEMA has until October 1994 to promulgate final guidelines. FEMA is currently reviewing the legislation, identifying those issues that such regulations must address, and developing more detailed guidelines based on the spirit of the legislation.

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Appendix A

Glossary of Terms and Abbreviations

The terms listed below are commonly encountered during the processing of Appeals, Protests, Map Revisions, Conditional Map Revisions, Map Amendments, and Conditional Map Amendments, and have been used throughout this Guide.

An Appeal is a formal objection to proposed base flood elevations, submitted by a community or individual resident during the 90-day appeal period, that is based on data that show the proposed base flood elevations are scientifically or technically incorrect.

The Base Flood is the flood that has a 1-percent probability of being equaled or exceeded in any given year (also referred to as 100-year flood).

The Base Flood Elevation (BFE) is the height of the base 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 FIS report, or depth of the base flood, usually in feet, above the ground surface.

The Chief Executive Officer (CEO) is the official of a community who has the authority to implement and administer laws, ordinances, and regulations for that community.

The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the *Federal Register* by the Executive Departments and agencies of the Federal Government. National Flood Insurance Program regulations are printed in Parts 59 through 77 of Title 44 of the CFR.

A Conditional Letter of Map Amendment (CLOMA) is the Federal Emergency Management Agency's comment on whether a proposed structure would be excluded from the Special Flood Hazard Area shown on the effective National Flood Insurance Program map.

A Conditional Letter of Map Revision (CLOMR) is the Federal Emergency Management Agency'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 BFEs.

A Conditional Letter of Map Revision Based on Fill (CLOMR-F) is the Federal Emergency Management Agency's comment on whether a proposed project involving the placement of fill at or above the BFE would be excluded from the Special Flood Hazard Area shown on the effective National Flood Insurance Program map.

The Consultation Coordination Officer (CCO) is the individual on the Federal Emergency Management Agency Regional Office staff who is responsible for coordinating with a community on activities related to the National Flood Insurance Program.

The effective date is the date on which the National Flood Insurance Program map for a community goes into effect and all legal sanctions of the National Flood Insurance Program apply.

The effective map is the latest NFIP map issued by the Federal Emergency Management Agency which is in effect as of the date shown in the title box of the map as "Effective Date," "Revised," or "Map Revised."

The Emergency Phase is the phase of the National Flood Insurance Program that was implemented, on an emergency basis, to provide a first layer amount of insurance on all insurable structures before the effective date of the initial Flood Insurance Rate Map.

An encroachment is construction, placement of fill, or similar alteration of topography in the floodplain that reduces the area available to convey floodwaters.

The Federal Emergency Management Agency (FEMA) is the independent Federal agency that, in addition to carrying out many other responsibilities, oversees the administration of the National Flood Insurance Program.

The Federal Insurance Administration (FIA) is the component of FEMA that has direct responsibilities for administering the National Flood Insurance Program.

The *Federal Register* is the document, published daily by the U.S. Government, that presents regulations and legal notices issued by Federal agencies, including proposed and final BFE determinations.

The Final Flood Elevation Determination is the final determination of BFEs made by the Administrator of FIA after the 90-day appeal period has ended and all Appeals have been resolved. Final BFE determinations are published in the *Federal Register*.

The Final CCO Meeting is the meeting at which the results of a Flood Insurance Study are discussed with community officials and the Preliminary report and maps are reviewed.

A Fiscal Year (FY) is a 12-month period that begins on October 1 and ends on September 30.

The Flood Boundary and Floodway Map (FBFM) is the floodplain management map issued by FEMA that depicts, based on detailed analyses, the boundaries of the 100- and 500-year floodplains and the regulatory 100-year floodway.

The Flood Hazard Boundary Map (FHBM) is the initial insurance map issued by FEMA that identifies, based on approximate analyses, the areas of 100-year flood hazard in a community.

The Flood Insurance Rate Map (FIRM) is the insurance and floodplain management map issued by FEMA that identifies, based on detailed or approximate analyses, the areas of 100-year flood hazard in a community. Flood insurance risk zones, which are used to compute to actuarial insurance rates, are also shown. In areas studied by detailed analyses, the FIRM shows BFEs and, occasionally, 500-year

floodplain boundaries, and, on some FIRMs, delineations of 100-year floodway boundaries.

A Flood Insurance Restudy (RFIS) is a detailed re-evaluation of the flood hazards in a community that is funded by and performed under contract to FEMA.

A Flood Insurance Study (FIS) is an engineering study that is performed under contract to FEMA to identify floodprone areas and to determine BFEs, flood insurance risk zones, and other flood risk data for a community.

An FIS Contractor is an architectural and engineering firm or Federal, State, or local agency that performs FISs and RFISs under contract to FEMA.

The Floodplain is the area subject to inundation by floodwaters from any source.

Floodplain Management is the operation of a program of corrective and preventive measures for reducing flood damage, including emergency preparedness plans, flood-control works, and floodplain management regulations.

The Floodway is a floodplain management tool that is the regulatory area defined as the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the 100-year flood discharge can be conveyed without increases of more than a specified amount in the BFE. The floodway is not an insurance rating factor.

The floodway fringe is the portion of the 100-year floodplain that is not within the floodway and in which development and other forms of encroachment may be permitted under certain circumstances.

A hydraulic computer model is a computer program that uses flood discharge values and data concerning floodplain characteristics to simulate flow conditions and determine flood elevations.

Hydraulic methodology is used for assessing the movements and behavior of floodwaters and determining flood elevations and floodway data.

Hydrologic methodology is used for conducting an analysis that determines peak flood discharges and their frequencies.

A **legally described parcel of land** is a parcel of land for which a metes and bounds description or a plat has been recorded. There can be structures on legally described parcels.

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.

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 boundary delineations, planimetric features, and/or BFEs.

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 **local newspaper** is the community newspaper, identified by the CEO, in which FEMA publishes notices at the beginning of an FIS or RFIS and notices of proposed BFEs.

A **Lot** is a parcel of land for which a metes and bounds description or a plat has been recorded and on which one or more structures may be built.

A **Map Revision** is a change to an effective NFIP map that is accomplished by a LOMR or a PMR.

A **Map Amendment** is a change to an effective NFIP map that results in the exclusion from the Special Flood Hazard Area (SFHA) of an individual structure or a legally described parcel of land that has been inadvertently included in the SFHA (i.e., no alterations of topography have occurred since the date of the first NFIP map that showed the structure or parcel to be within the SFHA).

The **National Flood Insurance Program (NFIP)** is the Federal program under which floodprone areas are identified and flood insurance is made available to owners of property in participating communities. The insurance is designed to

provide an alternative to disaster assistance for meeting the costs of repairing damage to buildings and their contents caused by floods. The NFIP is based on an agreement between the Federal Government and participating communities which states that if a community will carry out measures for reducing future flood risks to new construction in Special Flood Hazard Areas, the Federal Government will make flood insurance available within the community as financial protection against flood losses that do occur.

The **90-day appeal period** is the statutory period, beginning on the date of second publication of the proposed BFEs in the local newspaper, during which community officials and individual residents may appeal proposed BFEs by submitting data to show that the proposed BFEs are scientifically or technically incorrect.

A **participating community** is any community that voluntarily elects to participate in the NFIP by adopting and enforcing floodplain management regulations that are consistent with the standards of the NFIP.

A **Physical Map Revision (PMR)** is an official re-publication of an NFIP map to show changes to floodplain and/or floodway boundary delineations, BFEs, and planimetric features.

The **proposed BFEs** are those BFEs that are published in the *Federal Register* and local newspaper at the start of the 90-day appeal period.

A **Protest** is an objection to any information, other than BFEs, shown on an NFIP map that is submitted by a community or individual resident during the 90-day appeal period.

Scientifically incorrect BFEs are those BFEs determined through analyses in which the methodologies used and/or assumptions made are inappropriate for the physical processes being evaluated or are otherwise erroneous.

The **compliance period** is the period, usually 6 months in duration, and beginning with the date of the final BFE determination and ending with the effective date of the FIRM, during which a community must enact and adopt the

ordinances required for participation in the NFIP.

The Special Flood Hazard Areas (SFHAs) are the areas delineated on an NFIP map as being subject to inundation by the base (100-year) flood. SFHAs may be designated Zone A, AO, AH, A1-A30, AE, V, V1-V30, or VE.

Technically incorrect BFEs are BFEs determined through analyses in which the methodologies used have not been properly applied, are based on insufficient or poor quality data, or do not account for the effects of physical changes that have occurred in the floodplain.

Appendix B How To Obtain Publications and Backup Data

To comply with the requirements for supporting data discussed in this Guide, community officials and others who wish to submit Appeals, Protests, or requests for Map Revisions or Map amendments may find it necessary to obtain copies of effective FHBMs, FIRMs, FBFMs, and FIS reports; backup data for NFIP maps; or FEMA publications that explain the map change processes further. As discussed in the paragraphs that follow, those materials are available from the FEMA Flood Map Distribution Center, the FEMA Regional Offices, or the FEMA Headquarters Office. (See Appendix D.)

Preliminary and Effective Maps and Reports

After an NFIP map for a community has been issued in preliminary form, and again after it has been published, copies of the maps and, if applicable, the accompanying FIS report are sent to the community. The community stores the copies in an official local repository, where they are to be made available for community residents and other interested parties to review. The community map repository is often in the office of a floodplain administrator, community engineer, planner, or clerk.

FEMA also sends copies of LOMAs that amend NFIP maps and copies of all LOMRs to the local map repository.

After reviewing a copy of the effective NFIP map, requesters may want to order a copy of their own. Printed copies of effective NFIP maps can be obtained from the FEMA Flood Map Distribution Center. Requests for copies of effective NFIP maps should be sent to the following address:

Federal Emergency Management Agency
Flood Map Distribution Center
6930 (A-F) San Tomas Road
Baltimore, Maryland 21227-6227

Requesters can also place an order for effective NFIP maps by calling the Flood Map Distribution Center toll-free at 1 (800) 358-9616, or by facsimile at (800) 358-9620.

When ordering a copy of a map, requesters must specify the full name of the community and the NFIP community number or map number shown in the title box of the map. When the map consists of more than one panel, the Flood Map Distribution Center will provide copies of individual panels rather than the entire map; therefore, requesters may also be required to specify panel numbers.

Requesters will be charged for maps unless they are representatives of Federal, State, and local governments. Payment may be made by VISA or MASTERCARD or by personal check made payable to "NFIP."

Other Publications

To help communities and individual map users, FEMA has prepared the following documents that provide additional information about the NFIP, NFIP maps, and the Appeal, Map Revision, and Map Amendment processes:

- *National Flood Insurance Program and Related Regulations* — Reprints the regulations that govern the administration of the NFIP including the Appeal, Map Revision, and Map Amendment processes
- *Answers to Questions on the National Flood Insurance Program* — Provides answers to frequently asked questions about the purpose and operation of the NFIP, flood insurance and floodplain management requirements, and the mapping of flood hazards under the NFIP
- *Guide to Flood Insurance Rate Maps* — Describes the key elements and use of FIRMs

The application/certification forms referenced throughout this Guide describe the map revision, map amendment, and conditional determination processes and the required

supporting data in more technical terms and in greater detail than does this Guide.

FEMA is in the process of converting FIRMs to the North American Vertical Datum of 1988. For a better understanding of community requirements with regard to this change, copies of the following document should be obtained:

Converting the National Flood Insurance Program to the North American Vertical Datum of 1988, Guidelines for Community Officials, Engineers, and Surveyors.

Requests for any of the documents listed above or the Application/Certification forms should be directed to the appropriate FEMA Regional Office or the Headquarters Office. (See Appendix D.)

Backup Data

While an NFIP map is being processed for publication, copies of the data on which the map is based are available through the appropriate FEMA Regional Office or, with Regional Office approval, directly through the FEMA Contractor responsible for maintaining the archived data. For requests for data for communities in FEMA Regions I through V, the following FEMA Contractor can be contacted (see pages D-1 and D-2 for list of FEMA Regions):

Dewberry & Davis
2593 Prosperity Avenue
Fairfax, Virginia 24540
Attention: Information Request Specialist
Fax No.: (703) 876-0073

For requests for data for communities in FEMA Regions VI through X, the following FEMA Contractor can be contacted (see pages D-1 and D-2 for list of FEMA Regions):

Michael Baker Jr., Inc.
3601 Eisenhower Avenue, Suite 600
Alexandria, Virginia 22304
Attention: Library Manager
Fax No.: (703) 960-9125

Such data could include copies of calculations performed as part of hydrologic and/or hydraulic analyses (including printouts from

computer models), topographic maps, and other ground elevation data.

If requested during the 90-day appeal period, one free copy of the supporting documentation will be made available to the CEO or designee upon request. All other requesters must pay, with a check made payable to "NFIP," for search and duplication costs.

After an NFIP map has been published and distributed, the backup data for that map are microfilmed. Copies of those data can be provided on microfiche. Requests for microfilm data should also be directed to the appropriate FEMA Regional Office or to the FEMA Contractors cited above. Again, a fee will be charged for providing backup data on microfiche.

Appendix C

How To Support Revisions When Backup Data are Unavailable

Occasionally, FEMA will not have the backup data used in detailed studies to develop the FIS and FIRM. In such cases, requesters should review Section 1.3 of the FIS report to identify the company or agency that generated the data used to develop the FIRM. If backup data are not available from any source, requesters can use information contained in the FIS report and FIRM to recreate missing hydrologic and hydraulic models. FEMA typically requires that requesters recreate missing models to ensure a logical transition from unrevised to revised data.

Revision requesters should note that they should not change the methodology used unless an improved methodology is proposed and documentation is provided justifying why this change is an improvement.

Riverine Flooding Sources

For riverine flooding sources, requesters, should check Section 3.1 of the FIS report, which identifies the hydrologic methodology used. This methodology is typically a hydrologic model, gauge analysis, or regression equation. Section 3.2 of the FIS report specifies the hydraulic methodology used.

The FIS report also provides information regarding the starting water-surface elevations and Manning's "n" values, flood profile, and a floodway data table, which lists floodway width, floodway velocity, and unencroached and encroached 100-year water-surface elevations. In addition to this information, the FIRM or FBFM shows the locations and alignments of selected cross sections and the configuration of the floodway.

Coastal Flooding Sources

For coastal flooding sources, requesters should check Section 3.1 of the FIS report, which indicates the methodology used to determine stillwater elevations. Section 3.2 of the FIS report provides the methodology used to

determine any wave heights or wave runup and also may specify fetch lengths. The FIS report also includes a transect descriptions table which, in conjunction with the transect data table and transect location map, provide the approximate locations at which wave envelope elevations were computed and the resulting maximum 100-year wave elevations and range of BFEs.

Recreating Models

When requesters must recreate models to support revision requests, they should input the data derived from the FIS report, supplemented as necessary, into the same hydrologic or hydraulic model used to create the FIS. This model should then be calibrated to the FIS flood profiles to obtain 100-year water-surface elevations within a 0.1-foot tolerance. If the FIS flood profile cannot be replicated, requesters should note any differences, document the procedures used in attempting to replicate the profile, and explain why the profile cannot be replicated.

For further information on the data required to support a revision to the FIRM, please see Sections 5 and 9 of this Guide.

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Appendix D

Fee-Reimbursement System

Background

In June 1986, FEMA implemented a fee-reimbursement system to allow for a partial recovery of costs incurred by FEMA in reviewing requests for determinations based on proposed projects and issuing CLOMAs and CLOMRs. On October 1, 1992, the system was expanded to include requests for reviewing completed projects and issuing LOMRs and PMRs. Like the previously existing system for CLOMAs and CLOMRs, the expanded action was implemented to reduce expenses to the NFIP and to contribute to maintaining the NFIP as a non-taxpayer-funded, self-sustaining program.

Affected Submittals

The revised reimbursement procedures, which are set forth at 44 CFR, Part 72, apply to requests for the following:

- Single-lot and multiple-lot/subdivision CLOMAs
- Single-lot and multiple-lot/subdivision CLOMRs based solely on the placement of fill outside the regulatory floodway
- CLOMRs based on conditions other than the placement of fill
- Multiple-lot/subdivision LOMRs based solely on the placement of fill
- LOMRs based on conditions other than the placement of fill
- PMRs

Exemptions

The fee-reimbursement procedures set forth at 44 CFR, Part 72 do not apply to the following:

- Requests for single- and multiple-lot CLOMAs

- Requests for single-lot/single-structure LOMRs based solely on the placement of fill, if determined appropriate by the Administrator of FIA
- Requests from Federal, State, and local governments and their agencies for flood-control projects that they sponsor if determined appropriate by the Administrator of FIA
- Requests for Map Revisions to correct a mapping error or to include the effects of natural changes within the SFHAs shown on the map
- Requests for Map Revisions based solely on more detailed data that do not involve manmade modifications to the floodplain

For single-lot/single-structure LOMRs, the Administrator's determination will be based, in part, on whether the LOMR is being requested by an individual property owner or whether it is being requested prior to the transfer of ownership of the property in question from a developer to an individual property owner.

For requests from Federal, State, and local governments and their agencies, the Administrator's determination will be based on whether the requesting agency certifies that the particular project is (1) for public benefit, (2) primarily intended for flood-loss reduction to insurable structures in identified SFHAs, and (3) the structures were in existence prior to the beginning of construction of the flood-control project. Projects that were undertaken to protect planned floodplain development are not eligible for fee exemptions.

Unfavorable Responses

As cited at 44 CFR, Section 72.5, under certain circumstances, requests for CLOMAs or CLOMRs may be denied or the determination may contain specific comments, concerns, or conditions regarding proposed projects or designs and their impacts on communities' flood hazards, or the requesters may be unable to provide the appropriate scientific or technical data or obtain necessary authorizations or

permits. In such cases, requesters are not entitled to refunds of fees paid. Requesters are also not entitled to refunds of fees paid for LOMR or PMR requests that are denied or that do not result in the extent of revision desired by the requesters.

Summary of Reimbursable Costs

FEMA has determined that the costs associated with the engineering review and processing of requests for CLOMAs, CLOMR-Fs, CLOMRs, LOMR-Fs, LOMRs, and PMRs vary based on the type of project involved. In addition, FEMA found that the review costs are generally higher for requests that contain insufficient technical supporting data and therefore require additional submittals of technical data by the requester.

It was determined that, for each category of project/request, there are certain minimum review and processing costs that are common to all requests. These minimum costs were used to develop the initial fees. The initial fee must be received by FEMA before any review will commence, and they are non-refundable upon initiation of the review by FEMA.

To determine the initial fee, FEMA categorized the various conditional and final map revision and map amendment types and examined the review and processing times for engineering review, administration, word processing, and quality control. The basic processing time common to each type of project was then converted to a dollar amount using the rates FEMA actually pays for these services. The administrative expenses related to publishing notices of changes to BFEs in local newspapers and the *Federal Register* were also factored in.

The results of FEMA's determination were published in the *Federal Register*, at 57 FR 29078, on June 30, 1992. An adjustment to the original fee schedule become effective on October 1, 1993. That adjustment was published in the *Federal Register* at 58FR41089 on August 2, 1993. The fees that a requester must pay for requests submitted on and after October 1, 1993, are shown in Figure D-3.

Following completion of FEMA's review of any request for a CLOMA, CLOMR, CLOMR-F, multiple-lot LOMR-F, LOMR, or PMR, the requester will be billed at the established hourly rate (\$40 per hour effective October 1, 1993) for any actual costs exceeding the initial fee that was incurred during the review. That rate is published separately in the *Federal Register*.

To assist the requester in determining the estimated costs of the FEMA review of a request, FEMA has established pre-authorized spending limits. The limits that became effective on October 1, 1993, are also shown in Figure C-1. The pre-authorized spending limits will not be exceeded by FEMA during its review of a request. If FEMA determines that the review and processing costs will exceed the pre-authorized limits, the requester will be notified and processing of the request will be suspended until written authorization to proceed is received by FEMA.

In addition, for requests that result in LOMRs or PMRs and some LOMR-Fs, requesters will be notified and billed for the costs of cartographic preparation and processing of the revised maps and report. This work will not be initiated until FEMA has received payment of these costs. The established rate for requests processed after October 1, 1993, is \$410.00 per panel to be charged due to the requester's project. The cost of reprinting and distributing revised FIRMS, FBFMs, or FIS reports will be borne by FEMA and therefore will not be included in the costs billed to requesters.

It should be noted that the initial fees, hourly rates, pre-authorized spending limits, and cartographic preparation and processing costs may be adjusted periodically to reflect fluctuations in the prevailing private sector labor rate that is charged to FEMA. In such instances, the revised costs will be published in the *Federal Register*. Such adjustments will be made no more than once a year.

In all cases, FEMA will not issue a final determination on a request until all requested fees have been received or the requester has proven that the request should be exempt from the fee-reimbursement procedures.

Table 5. Fee Schedule for Requests Submitted on and After October 1, 1993

PROJECT TYPE	INITIAL FEE CLOMR/CLOMA CLOMR-F	INITIAL FEE LOMR-F/ LOMR/PMR	INITIAL FEES LOMR-F/ LOMR/PMR FOLLOWUP TO CLOMR	PRE-AUTHORIZED SPENDING LIMITS
Single Lot	\$200.00	\$425.00	N/A	\$500.00
Multiple-Lot/Subdivision	\$280.00	\$505.00	\$200.00	\$1,200.00
Review of New Hydrology	\$280.00	N/A	N/A	\$3,500.00
New Bridge or Culvert (No Channelization)	\$560.00	\$785.00	\$225.00	\$3,500.00
Channel Modifications Only	\$640.00	\$865.00	\$225.00	\$3,500.00
Channel Modifications and New Bridge or Culvert	\$840.00	\$1,065.00	\$225.00	\$3,500.00
Levees, Berms, or Other Structural Measures	\$1,080.00	\$1,305.00	\$225.00	\$3,500.00
Structural Measures on Alluvial Fans	\$2,800.00	\$3,025.00	\$225.00	\$6,500.00

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Appendix E Addresses and Telephone Numbers of Federal Emergency Management Agency Offices

The current addresses and telephone numbers of the FEMA Headquarters office, the various Regional Offices, and the locations for archived data are provided in the subsections that follow.

FEMA Headquarters Office*

Federal Emergency Management Agency
Mitigation Directorate
Hazard Identification and Risk Assessment
Division
500 C Street, SW
Washington, DC 20472

(202) 646-2756 Hazard Identification Branch
(202) 646-2758 Risk Assessment Branch
Fax: (202) 646-4596

*Inquiries that would have been directed to the Risk Studies and Technical Operations Divisions of the Headquarters Office are now to be directed to the Hazard Identification Branch.

FEMA Regional Offices

REGION I

(Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont)

Federal Emergency Management Agency
Director, Mitigation Division
J.W. McCormack Post Office & Courthouse
Building, 4th Floor
Boston, Massachusetts 02109-4595

(617) 223-9561

REGION II

(New Jersey, New York, Puerto Rico, Virgin Islands)

Federal Emergency Management Agency
Director, Mitigation Division
26 Federal Plaza, 13th Floor
New York, New York 10278-0002

(212) 225-7200

REGION III

(Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, and West Virginia)

Federal Emergency Management Agency
Director, Mitigation Division
Liberty Square Building, Second Floor
105 South Seventh Street
Philadelphia, Pennsylvania 19106-3316

(215) 931-5512

REGION IV

(Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee)

Federal Emergency Management Agency
Director, Mitigation Division
1371 Peachtree Street, NE, Suite 700
Atlanta, Georgia 30309

(404) 853-4400

REGION V

(Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin)

Federal Emergency Management Agency
Director, Mitigation Division
175 West Jackson Boulevard
4th Floor
Chicago, Illinois 60604-2698

(312) 408-5500

REGION VI

(Arkansas, Louisiana, New Mexico, Oklahoma, and Texas)

Federal Emergency Management Agency
Director, Mitigation Division
Federal Regional Center
800 North Loop 288
Denton, Texas 76201-3698

(817) 898-5127

REGION VII

(Iowa, Kansas, Missouri, and Nebraska)

Federal Emergency Management Agency
Director, Mitigation Division
Federal Office Building
911 Walnut Street, Room 200
Kansas City, Missouri 64106-2085

(816) 283-7002

REGION VIII

(Colorado, Montana, North Dakota, South Dakota, Utah, and Wyoming)

Federal Emergency Management Agency
Director, Mitigation Division
Denver Federal Center, Building 710
Box 25267
Denver, Colorado 80225-0267

(303) 235-4830

REGION IX

(Arizona, California, Guam, Hawaii, and Nevada)

Federal Emergency Management Agency
Director, Mitigation Division
The Presidio of San Francisco
Building 105
San Francisco, California 94129-1250

(415) 923-7175

REGION X

(Alaska, Idaho, Oregon, and Washington)

Federal Emergency Management Agency
Director, Mitigation Division
Federal Regional Center
130 228th Street, SW
Bothell, Washington 98021-9796

(206) 487-4682

Locations for Archived Data

Regions I-V

Dewberry & Davis
2953 Prosperity Avenue
Fairfax, Virginia 22031
Attn: Information Request Specialist
Fax No.: (703) 876-0073

Regions VI-X

Michael Baker Jr., Inc.
3601 Eisenhower Avenue, Suite 600
Alexandria, Virginia 22304
Attn: Library Manager
Fax No.: (703) 960-9125

Location for FEMA Publications

To order multiple copies of any FEMA document, please write:

Federal Emergency Management Agency
Attn: Publications
P.O. Box 70274
Washington, DC 20024