

Chapter 9

Revisions Based on “Flood Protection Restoration” (Zone AR) Determinations

9.1 Background

Legislation passed in October 1992 amended the National Flood Insurance Act of 1968 and established a flood restoration zone, termed Zone AR. The U.S. Congress created the Zone AR designation so that a community participating in the National Flood Insurance Program (NFIP) with a de-accredited flood protection system (i.e., levee 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.

In response to that legislation, the Federal Emergency Management Agency (FEMA), as administrator of the NFIP, had to develop and enforce regulatory and procedural requirements for Zone AR. Although FEMA is **not** responsible for building, maintaining, operating, certifying, or restoring levee systems, FEMA does have responsibility for developing and enforcing the regulatory and procedural requirements that support the NFIP. The requirements for determining whether a completed levee system should be credited with providing 1-percent-annual-chance flood protection on a Flood Insurance Rate Map (FIRM) or Digital Flood Insurance Rate Map (DFIRM) are documented in Section 65.10 of the NFIP regulations, titled “Mapping of

Areas Protected by Levee Systems.” The following resources help guide mapping in levee-impacted areas:

- Appendix H, “Guidance for Mapping of Areas Protected by Levee Systems,” of FEMA’s *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- FEMA Procedure Memorandums issued to clarify the regulatory and procedural requirements for FEMA staff, contractors, and mapping partners; and
- “Meeting the Criteria for Accrediting Levees on FEMA’s Flood Maps: How-To Guide for Floodplain Managers and Engineers.”

The regulatory requirements for levee systems that are being restored are provided in Section 65.14 of the NFIP regulations, titled “Remapping of Areas for Which Local Flood Protection Systems No Longer Provide Base Flood Protection.” The procedural requirements also are provided in FEMA’s *Guidelines and Specifications for Flood Hazard Mapping Partners*.

These resources and the other resources related to levee systems discussed in this *Guide* are posted in the FEMA Library (<http://www.fema.gov/library/index.jsp>) and are accessible through levee-dedicated pages on the FEMA Website. The gateway to the FEMA-provided levee system information is www.fema.gov/plan/prevent/fhm/lv_intro.shtm.

FEMA relies on Federal, State, and local agencies and private levee owners to provide them with the required data and documentation on levee systems so that the hazards and risks in levee-impacted areas may be presented accurately on the FIRM/DFIRM, in the associated Flood Insurance Study (FIS) report, and in related products. Requirements related to appeals involving completed levee systems are provided in Chapter 3 of this *Guide*.

FEMA relies on Federal, State, and local agencies to provide data and documentation regarding new and restored levee systems.

9.2 Community, State, and Federal Responsibilities

Communities, State agencies, and Federal agencies may construct new levee systems to address flood hazards and reduce flood risks to structures and people in a particular community or particular area of a state. Likewise, these communities and agencies may undertake a project to restore the flood protection capability of a levee system that had previously been credited with providing a 1-percent-annual-chance level of flood protection to that level of protection, thereby reducing the flood risk to the people and structures located in levee-impacted areas.

When communities, State agencies, and Federal agencies undertake such projects to provide a 1-percent-annual-chance level of flood protection, they will want to submit the appropriate data and documentation to FEMA, so that FEMA may present updated, accurate flood hazard and risk information in the levee-impacted

areas on the maps and related documents. The required data and documentation will vary, depending on the type of determination that the community would like FEMA to make regarding the project and the flood insurance risk zone designation that the community would like FEMA to include on the effective FIRM/DFIRM for that community.

9.3 General Requirements

The “flood protection restoration” (Zone AR) determination process can be used when a Federal flood protection system, such as a levee system, no longer provides a 1-percent-annual-chance level of flood protection. This designation indicates that the increased flood hazard and associated risk is considered temporary and recognizes that a levee system is being restored to provide the 1-percent-annual-chance level of flood protection, thereby reducing the flood risk to people and structures in the levee-impacted areas.

The Zone AR determination process may result in reductions in the flood insurance premium costs and in the elevation requirements for new construction and substantial improvements to existing structures. The process also helps eligible communities establish a plan for restoring flood protection with the assurance that the restoration project, if constructed as proposed, will result in the eventual removal of the high-risk Special Flood Hazard Area (SFHA) designation from the levee-impacted areas. The SFHA is the area that would be inundated by the 1-percent-annual-chance flood.

9.4 Eligibility Requirements

A community may be eligible to apply for the Zone AR designation if FEMA determines that the community is engaged in the process of restoring a flood protection system that was:

- Constructed using Federal funds;
- Recognized as providing 1-percent-annual-chance flood protection on the effective FIRM/DFIRM; and
- Decertified by a Federal agency responsible for flood protection design or construction.

9.5 Application and Submittal Requirements

To apply for the Zone AR designation, the community Chief Executive Officer (CEO), community floodplain administrator (FPA), or another community official designated by the CEO must submit a formal written request to the Administrator of the FEMA Regional Office that serves the community along with the supporting information and documentation outlined in Section 65.14 of the NFIP regulations (and listed below), and any additional information requested by the FEMA Regional Office. The addresses of the FEMA Regional Offices are provided in Appendix E of this *Guide*.

The FEMA Regional Office will not initiate any action to designate flood protection restoration zones without receiving a formal written request from the community that complies with **all**

requirements of Section 65.14 of the NFIP regulations.

9.5.1 Supporting Information and Documentation Required for Community That Does Receive Federal Funds

The minimum information and documentation required for a flood protection project that involves Federal funds are listed below. FEMA reserves the right to request additional information and documentation from the community to support or further document the community's formal request.

1. A statement whether, to the best of the knowledge of the community CEO, the flood protection system is currently the subject matter of litigation before any Federal, State or local court or administrative agency, and if so, the purpose of that litigation;
2. A statement whether the community has previously requested a determination from FEMA with respect to the same subject matter, and, if so, a statement that details the disposition of the previous request;
3. A statement from the community and certification by a Federal agency responsible for flood protection design or construction that the existing system, as shown on the effective FIRM or DFIRM, was originally built using Federal funds, that it no longer provides 1-percent-annual-chance flood

protection, but that it continues to provide at least a 3-percent-annual-chance flood protection during any year;

4. An official map of the community or legal description, with supporting documentation, that the community will adopt as part of its floodplain management measures, which designates “developed areas” as defined in Section 59.1 of the NFIP regulations and as further defined in Paragraph 60.3(f) of the NFIP regulations;
5. A restoration plan to return the system to a 1-percent-annual-chance level of flood protection;
6. A statement identifying the local project sponsor responsible for restoration of the flood protection system;
7. A copy of a study, performed by a Federal agency responsible for flood protection design or construction in consultation with the local project sponsor, which demonstrates a Federal interest in restoration of the system and which deems that the system is restorable to a 1-percent-annual-chance level of protection; and
8. A joint statement from the Federal agency responsible for flood protection design or construction involved in the project and the local project sponsor certifying that the design and construction of the system involves Federal funds, and that the restoration of the system will provide a 1-percent-annual-chance level of protection.

At a minimum, the restoration plan submitted with the community’s determination request must:

- List all important project elements, such as acquisition of permits, approvals, and contracts and construction schedules of planned features.
- Identify anticipated start and completion dates for each element, as well as significant milestones and dates.
- Identify the date on which “as-built” drawings and certification for the completed restoration project will be submitted. This date must provide for a restoration period not to exceed the maximum allowable restoration period for the system.
- Identify the date on which the community will submit a request for a finding of adequate progress that meets all requirements of Section 61.12 of the NFIP regulations. This date may not exceed the maximum allowable restoration period for the system. (Additional information on adequate progress determinations is provided in Chapter 10 of this *Guide*.)

9.5.2 Supporting Information and Documentation Required for Community That Does Not Receive Federal Funds

The minimum information and documentation required for a flood protection project that involves no Federal

funds are listed below. FEMA reserves the right to request additional information and documentation from the community to support or further document the community's formal request.

- Item Nos. 1-6 from the list above for communities that do receive Federal funds;
- A copy of a study, certified by Registered Professional Engineer, that demonstrates that the flood protection system is restorable to provide 1-percent-annual-chance flood protection;
- A statement from the local agency responsible for restoration of the system certifying that the restored system will meet the applicable criteria of Part 65 of the NFIP regulations; and
- A statement from the local agency responsible for restoration of the system that identifies the source(s) of funding for the project and the percentage of the total funds contributed by each source to demonstrate, at a minimum, that 100 percent of the total financial project cost of the completed system has been appropriated.

The requirements for the restoration plan that must be submitted are the same as those cited above for communities that do receive Federal funds, with one exception. Because the project does not involve Federal funds, it does not meet the minimum qualifications for an adequate progress determination. Therefore, the restoration plan does not need to identify the date on which the community will

submit a request for an adequate progress determination from FEMA.

9.6 Limitations and Completion Requirements

A community may have a Zone AR designation only once during the restoration of a particular levee system. This limitation does not preclude future Zone AR designations should a fully restored, certified, and accredited levee system become decertified for a second or subsequent time.

A community that receives Federal funds for the purpose of designing, or constructing, or designing and constructing the restoration project must complete the restoration or meet the adequate progress requirements of Section 61.12 of the NFIP regulations within a specified period. The completion date for federally funded projects is not to exceed a maximum of 10 years from the date of submittal of the community's application for the Zone AR designation.

A community that does **not** receive Federal funds for the purpose of designing or constructing the project must also complete the restoration within a specified period, not to exceed a maximum of 5 years from the date of submittal of the community's application for the Zone AR designation. Because no Federal funds are involved, the project would not be eligible for a Zone A99 designation under the provisions of Section 61.12 of the NFIP regulations. The designated restoration period may not be extended beyond the maximum allowable under this limitation.

9.7 Exclusions

The provisions of Section 65.14 of the NFIP regulations do not apply to a levee system in a coastal high hazard area as defined in Section 59.1 of the NFIP regulations. This exclusion includes areas that would be subject to coastal high hazards as a result of the decertification of a previously certified levee system that had been accredited and shown on the effective FIRM/DFIRM for a community as providing 1-percent-annual-chance flood protection.

9.8 FEMA Review and Response

FEMA will review all data and documentation submitted in support of the community's application for the Zone AR designation. Upon completing this review, FEMA will respond, in writing, to the CEO of the community, in accordance with the procedures specified in Section 65.9 of the NFIP regulations.

If FEMA issues a flood protection restoration determination, they will prepare new or revised FIRM/DFIRM panels that designate the temporary flood hazard areas that are impacted by the levee system as Zone AR. Existing SFHAs shown on the effective FIRM/DFIRM panel(s) for the areas that are further inundated by Zone AR flooding will be designated as one of the following flood insurance risk zones, which are referred to collectively as dual flood zones:

- Zone AR/AE or AR/AH with Zone AR Base (1-percent-annual-chance) Flood Elevations (BFEs) determined;
- Zone AR/A1-30, for older FIRMs, where the flooding source was studied by detailed methods in accordance with Appendix C of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* or previous FEMA guidelines and specifications document and Zone AR BFEs are determined;
- Zone AR/AE, for newer FIRMs and on DFIRMs, where the flooding source was studied by detailed methods in accordance with Appendix C of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* or previous FEMA guidelines and specifications document and Zone AR BFEs are determined;
- Zone AR/AH, for FIRMs or DFIRMs, where a shallow flooding analysis was performed in accordance with Appendix E of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* or previous FEMA guidelines and specifications document and Zone AR BFEs are determined;
- Zone AR/AO, for FIRMs or DFIRMs, where a shallow/sheet flooding analysis was performed in accordance with Appendix E of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* or previous FEMA guidelines and specifications document and Zone AR base flood depths are determined; and

- Zone AR/A, for FIRMs or DFIRMs, where the flooding source was studied by approximate methods in accordance with Appendix C of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* or previous FEMA guidelines and specifications document and no BFEs are determined.

9.9 Requirements for Maintaining Zone AR Designation

To maintain the Zone AR designation, the following requirements must be met:

- The community and any cost-sharing Federal agency must certify annually to the FEMA Regional Office that serves the affected community/communities that the restoration will be completed in accordance with the restoration plan within the time period specified by the plan.
- The community and Federal agency must update the restoration plan and must identify any permitting or construction problems that will delay the project completion.

The FEMA Regional Office that serves the affected community/communities will make an annual assessment and recommendation to the FEMA Administrator as to the viability of the restoration plan and will conduct periodic onsite inspections of the restoration project.

9.10 Flood Insurance Requirements in Zone AR

The following flood insurance requirements apply in areas designated Zone AR on an effective FIRM/DFIRM:

- The mandatory flood insurance purchase requirements of the NFIP apply; however, the flood insurance premium rates for Zone AR are significantly lower than the premium rates for other SFHAs.
- The NFIP grandfathering rules apply to structures in Zone AR and dual flood zones, which is important after the restoration project is complete.
- If a property owner purchases a policy, maintains continuous coverage, and is later determined to be in an SFHA after the restoration project is complete, the original flood insurance premium rate would apply.

The effective date for any flood insurance risk premium rates established for Zone AR is the effective date of the new or revised FIRM/DFIRM showing the Zone AR designations.

9.11 Floodplain Management and Building Requirements in Zone AR

The floodplain management and building requirements below apply when FEMA has issued a Letter of Final Determination to a community to finalize a new or revised

FIRM/DFIRM and has identified flood protection restoration areas by designating the areas as Zone AR or as dual flood zones on the FIRM/DFIRM. These requirements also apply in areas designated Zone AR on an **effective** FIRM/DFIRM.

The floodplain management and building requirements summarized below are in accordance with Paragraph 60.3(f) of the NFIP regulations.

- The community must adopt an official map or legal description of those areas within Zone AR and dual flood zones that are designated as "developed areas," as defined in Section 59.1 of the NFIP regulations.
- For all new construction of structures in areas within Zone AR, the community must determine the applicable Zone AR BFE and use that BFE to apply the requirements of Subparagraphs 60.3(c)(1) through (14) of the NFIP regulations.
 - a. For areas that are designated as developed areas, the community must use the elevation that is 3 feet above the highest adjacent grade (or the Zone AR BFE, if that is lower).
 - b. For areas outside of the developed areas where the Zone AR flood depth is 5 feet or less, the community must use the elevation that is 3 feet above the highest adjacent grade (or the Zone AR BFE, if that is lower).
 - c. For areas outside of the developed areas where the Zone AR flood depth is more than 5 feet, the community must use the Zone AR BFE.
 - d. For dual flood zones, the community must use the higher of the applicable Zone AR BFE or the BFE or base flood depth for the underlying Zone A1-30, Zone AE, Zone AH, Zone AO, or Zone A.
- For all substantial improvements to existing construction within dual flood zones, the community shall use the BFE or base flood depth for the underlying Zone A1-30, AE, AH, AO, or A to apply the requirements of Subparagraphs 60.3(c)(1) through (14).
- The community must notify the permit applicant that the area has been designated as Zone AR, Zone AR/A1-30, Zone AR/AE, Zone AR/AH, Zone AR/AO, or Zone AR/A, and whether the structure will be elevated to or above the Zone AR BFE.

9.12 Requirements for Removing Zone AR Designation from Map

Once a levee system restoration or construction project has made adequate progress, as defined in Section 61.12 of the NFIP regulations, the CEO of the community or another community official designated by the CEO may submit written evidence that the criteria of Section 61.12 have been met and request that FEMA

make an adequate progress determination and revise the FIRM/DFIRM to show a Zone A99 designation for the levee-impacted area. Additional requirements for Zone A99 designations are provided in Chapter 10 of this *Guide*.

The Zone AR designation also may be removed when the levee system restoration project has been completed. The requirements are as follows:

- If a community receives Federal funds for the project, that community must provide written evidence of certification from a Federal agency having flood protection design or construction responsibility that the necessary improvements have been completed and that the system has been restored to provide a 1-percent-annual-chance level of flood protection.
- If a community does not receive Federal funds for the project, that community must provide written evidence that the restored levee system meets the requirements of Section 65.10 of the NFIP regulations.

Upon receipt of the required data and documentation, FEMA will revise the affected FIRM/DFIRM panel(s) and related products to reflect the impact of the completed project on flood hazards in the levee-impacted area.

FEMA also has procedures for removing the Zone AR designation due to non-compliance with the restoration schedule or as a result of a finding that satisfactory progress is not being made to complete the restoration. These procedures and the resulting action that will be taken by FEMA are documented in Paragraph 65.14(i) of the NFIP regulations.

A community that has completed a project as planned must provide the data and documentation cited in the criteria in Section 65.10 of the NFIP regulations to FEMA for the levee system to be accredited on an updated FIRM/DFIRM. Once FEMA receives and reviews the required data and documentation, FEMA will redesignate the levee-impacted area as shaded Zone X, except for internal drainage areas, to indicate the residual flood hazard of the completed project.