LEVEES
IDENTIFYING THE RISK

# Provisionally Accredited Levees

## Answers to Questions About Procedure Memorandum No. 43

Providing communities with up-to-date, accurate, and reliable flood hazard and risk information on Digital Flood Insurance Rate Maps (DFIRMs) is one of the primary goals of the Flood Map Modernization (Map Mod) effort undertaken by the Department of Homeland Security, Federal Emergency Management Agency (FEMA). Levee systems have been identified in over one-fourth of the counties that will receive modernized maps—Digital Flood Insurance Rate Maps (DFIRMs)—as part of Map Mod. Therefore, FEMA has been working, and continues to work with Federal, State, and local professionals and technical partners to determine the flood protection and risk-reduction capabilities of the Nation's levee systems and to accurately reflect the flood hazard and risk in "levee-impacted" areas on the DFIRMs. As part of the Map Mod effort, FEMA reviewed its existing guidance regarding the submittal of data and documentation to meet National Flood Insurance Program (NFIP) requirements for the evaluation and mapping of levee-impacted areas. As a result of this review, FEMA issued three Procedure Memorandums to clarify these requirements. The questions and answers below are provided to further explain these requirements.

**Q: What is a levee system?**

**A:** A levee system is a flood protection system that consists of a levee, or levees, and associated structures, such as closure and drainage devices, which are constructed and operated in accordance with sound engineering practices. A levee is a manmade structure, usually an earthen embankment, designed and constructed in accordance with sound engineering practices to contain, control, or divert the flow of water so as to provide protection from temporary flooding

Levee systems are designed to provide a *specific level of protection*. They can be overtopped or fail in larger flood events. They require regular maintenance and periodic upgrades to retain their level of protection. When levee systems do fail, they often fail catastrophically, and the resulting damage, including loss of life, may be more significant than if the levee system had not been built. Everyone should understand the risk to life and property that exists behind levee systems—risk that even the best flood protection system cannot eliminate completely.

**Q: What regulations apply to the evaluation and mapping of levee systems and levee-impacted areas?**

**A:** The regulatory requirements of the NFIP are cited at Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations (44 CFR Section 65.10). According to 44 CFR Section 65.10, it is the community, levee owner, and/or local project sponsor's responsibility to submit the data and documentation showing that a levee system complies with these requirements, including the development and maintenance of an operation and maintenance plan. You may access 44 CFR Section 65.10 through the FEMA Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

**Q: What are the procedural requirements for evaluating and mapping levee-impacted areas?**

**A:** FEMA has issued three Procedure Memorandums that provide guidance for mapping levee-impacted areas—Procedure Memorandum No. 34 (PM 34) —*Interim Guidance for Studies Including Levees*, Procedure Memorandum No. 43 (PM 43)—*Guidelines for Identifying Provisionally Accredited Levees*, and Procedure Memorandum No.45 (PM 45)—*Revisions to Accredited Levee and Provisionally Accredited Levee Notations* —as clarification to Appendix H of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*. PM 43 describes the various PAL scenarios and how each may be mapped. Information on PM 45, which provides updated information on the map notes that are to appear on DFIRM panels showing accredited and provisionally accredited levee systems, is provided on a separate Fact Sheet. You also may access these three Procedure Memorandums and other related guidance through the FEMA Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.


All policy and standards in this document have been superseded by the FEMA Policy for Flood Risk Analysis and Mapping.
However, the document contains useful guidance to support implementation of the new standards.

**Q: Who is responsible for complying with the requirements of 44 CFR Section 65.10?**

**A:** Compliance with 44 CFR Section 65.10 requirements rests with communities, levee owners, and/or local project sponsors—not FEMA. A levee system owner can be a Federal or State agency, a water management or flood control district, a local community, a levee district, a non-public organization, or an individual. The party responsible for operating and maintaining the levee system must be a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the NFIP. FEMA's responsibility is solely to review the data and documentation provided and either accredit the levee system with providing 1-percent-annual-chance flood protection on the DFIRM or, when the levee system is shown to be inadequate, to reflect the increased risk of flooding to people and structures in the levee-impacted areas on the DFIRM.

**Q: Why did FEMA issue PM 34?**

**A:** Documentation regarding levee design, structural integrity, and other requirements for accrediting a levee system with providing 1-percent-annual-chance flood protection often is outdated or missing altogether. To help clarify the entities responsible for providing data and documentation on levees systems identified during a study/mapping project, FEMA issued PM 34 on August 22, 2005. PM 34 clarifies that it is the levee owner or community's responsibility to provide data and documentation to show that a levee system meets the requirements of 44 CFR Section 65.10 as part of a study/mapping project. In addition, PM 34 provides clarification on procedures to minimize delays in near-term studies/mapping projects and to aid project teams in properly assessing how to handle levee system-related mapping issues.

**Q: When and why did FEMA issue PM 43?**

**A:** FEMA originally issued PM 43 on September 25, 2006. PM 43 provides guidance to FEMA contractors and mapping partners on issuing preliminary and, in some cases, effective DFIRMs, while providing communities and levee owners with additional time to compile and submit the data and documentation necessary to demonstrate compliance with 44 CFR Section 65.10. On March 16, 2007, FEMA issued a revised version of PM 43 to include guidance on evaluating levees systems that the U.S. Army Corps of Engineers has determined to be maintenance deficient and to offer a one-time-only 1-year "maintenance deficiency correction period."

**Q: When is a levee system designated as a Provisionally Accredited Levee, or PAL, system?**

**A:** The PAL designation is used for a levee system when FEMA has previously accredited the system with providing 1-percent-annual-chance flood protection on an effective Flood Insurance Rate Map (FIRM) and FEMA is awaiting data and/or documentation that will demonstrate the levee system's compliance with 44 CFR Section 65.10 of the NFIP regulations. A PAL is shown on a DFIRM as providing 1-percent-annual-chance flood protection, and the area impacted by the PAL system is shown as Zone X (shaded) except for areas of residual flooding, such as ponding areas, which will be shown as a Special Flood Hazard Areas (SFHAs).

**Q: What happens when a levee system meets the PAL requirements of PM 43?**

**A:** For levee systems that meet the PAL requirement (levee systems presently shown as providing 1-percent-annual-chance flood protection on the effective FIRM and for which the community or levee owner cannot readily provide all data and documentation required by 44 CFR Section 65.10), FEMA will place a note on the DFIRM panel landward of the levee system to indicate FEMA has provisionally accredited the levee system and the designation of any existing Zone X (shaded) area is provisional. FEMA will also add an explanatory note to the Notes to Users section of the map frame.

Before FEMA will designate a levee system as a PAL system, the community or levee owner will need to sign and return an agreement. By signing the agreement, the levee owner/community indicates the levee system currently complies with the requirements of 44 CFR Section 65.10 and that the data and documentation required for compliance with 44 CFR Section 65.10 will be provided within a specified timeframe. The timeframe will depending on the levee system's status (i.e., within 24 months of the 91st day following the date of the initial notification letter or within 24 months of the final day of the correction period for levees that have been offered the 1-year maintenance deficiency correction period).

**Q: How will a PAL be identified on a DFIRM?**

**A:** To identify the PAL, FEMA has been applying and may continue to apply the note below at several locations on DFIRM panels that will become effective before December 1, 2008. The note points to the levee system and is placed on the landward side of the levee system on the affected DFIRM panel(s) in or near the Zone X (shaded) area:

> WARNING: Provisionally Accredited Levee. For explanation, see the Notes to Users.

The following note has been or will be added to the Notes to Users on DFIRM panels that will become effective before December 1, 2008:

> WARNING: This levee, dike, or other structure has been provisionally accredited and mapped as providing protection from the 1-percent-annual-chance flood. To maintain accreditation, the levee owner or community is required to submit documentation necessary to comply with 44 CFR Section 65.10 by (_____,____). Because of the risk of overtopping or failure of the structure, communities should take proper precautions to protect lives and minimize damages in these areas, such as issuing an evacuation plan and encouraging property owners to purchase flood insurance.

The notes that will appear on the DFIRM panels that will become effective after December 1, 2008, are documented in PM No. 45 and in an accompanying Fact Sheet titled "Levee Notes on FEMA Maps: Answers to Questions About Procedure Memorandum No. 45."

**Q: How does FEMA determine if a levee system meets the PAL requirements of PM 43?**

**A:** For a levee system to be eligible for PAL designation, the levee system must be shown as providing protection from the 1-percent-annual-chance flood on the effective FIRM. Additional PAL requirements include the submittal of a PAL application package and a 12-month progress report. If applicable, there are other potential requirements, including a letter requesting a maintenance deficiency correction period and submittal of data demonstrating that maintenance deficiencies have been corrected (as appropriate). Specific timeframes for these requirements vary depending on the levee's status; however, more detailed information can be found in the guidance document, titled "Guidelines for Identifying Provisionally Accredited Levees." that accompanied PM 43. This document contains descriptions of different mapping scenarios and is accessible through the FEMA Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

For levee systems in the U.S. Army Corps of Engineers (USACE) Program that are shown on the effective FIRM as providing 1-percent-annual-chance flood protection but have known deficiencies, FEMA will coordinate with the appropriate USACE district to determine if the USACE will offer the one-time-only, 1-year maintenance deficiency period.

**Q: What if a levee system qualifies for the maintenance deficiency correction period as specified in PM 43?**

**A:** For levee systems not in the USACE Program, if the community/levee owner believes that the levee system meets 44 CFR Section 65.10 requirements with the exception of maintenance deficiencies, then the community/levee owner may qualify for a one-time-only 1-year maintenance deficiency correction period. The community/levee owner will have 90 days from the date of the initial notification letter from FEMA to submit a signed letter requesting the maintenance deficiency correction period.

The community/levee owner then has 12 months to submit 44 CFR Section 65.10-compliant data and documentation or a completed PAL application package (if additional time is needed to compile 44 CFR Section 65.10-compliant data and documentation) to show the levee system as accredited. If the community/levee owner does not provide 44 CFR Section 65.10-compliant data and documentation or a completed PAL application within the 12-month period,

then FEMA will issue an effective DFIRM showing the area landward of the levee as a Special Flood Hazard Area (SFHA), labeled Zone AE or Zone A, depending on the type of engineering study performed for the area.

The USACE determines whether the one-time-only, 1-year maintenance deficiency correction period will be offered for a levee system in the USACE Program. If the USACE does offer the correction period for the levee system, FEMA will de-accredit the levee system and remap the levee-impacted area to show it as a high-risk SFHA, labeled Zone AE or Zone A, depending on the type of engineering study performed for the area. If the USACE does offer the correction period for the levee system, the community/levee owner has 1 year to either submit data and documentation for 44 CFR Section 65.10 compliance or request and be approved for PAL designation (if additional time is needed). If neither is received, then FEMA will de-accredit the levee system and will issue an effective DFIRM showing the levee-impacted area as an SFHA, labeled Zone AE or Zone A, depending on the type of engineering study performed for the area.

**Q: What qualifies as a USACE Program levee system?**
**A:** Levee systems within the USACE Program are defined to include the following:

- Levee systems built by the USACE that were authorized for construction by the U.S. Congress or by USACE continuing authorities (e.g., Section 205);
- Levee system projects constructed by non-Federal interests or other (non-USACE) Federal agencies and incorporated into the USACE Federal system by specific congressional action; and
- Federal projects that are either operated and maintained by the USACE or turned over to a local sponsor for operation and maintenance; and Non-Federal projects within the Rehabilitation and Inspection Program (RIP), Public Law 84-99.

**Q: What qualifies as a Non-USACE Program Levee?**
**A:** Non-Federal levees are defined to include the following:

- Levee systems not authorized by the U.S. Congress or other Federal agency authority;
- Levee systems built by other Federal agencies and not incorporated into the USACE Federal system;
- Locally built and maintained levee systems built by a local community; and
- Levee systems that are privately built by a nonpublic organization or individuals and maintained by a local community.

**Q: Does adhering to PM 43 delay the release of new DFIRMs?**
**A:** The PM 43 process allows FEMA to issue the preliminary and effective DFIRMs while providing communities and levee owners a specified timeframe to submit the data and documentation necessary to show compliance with 44 CFR Section 65.10. For levee systems with maintenance deficiencies (that are otherwise believed to comply with the requirements of 44 CFR Section 65.10), the release of new DFIRMs may be delayed up to 1 year to provide the community/levee owner with additional time to correct these deficiencies.

It is important that community officials and citizens have the most accurate and up-to-date information to make decisions based on the flood risk that exists in areas behind levee systems. PM 43 allows for community officials and the public to have the most current flood hazard and risk information while the community or levee owner is given a reasonable amount of time to compile and submit data and documentation to show compliance with the requirements of 44 CFR Section 65.10.