



FEMA



# Provisionally Accredited Levee Systems

## 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 ongoing map modernization effort undertaken by the Federal Emergency Management Agency (FEMA). As part of this effort, FEMA has been coordinating closely with the U.S. Army Corps of Engineers (USACE) and other Federal, State, and local professionals and technical partners. Through this coordination, FEMA and its partners are working to determine the risk reduction capabilities of the Nation's levee systems and accurately reflect the flood hazard and risk in "levee-impacted" areas on the DFIRMs.

In support of this effort, FEMA reviewed 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 several Procedure Memorandums to clarify requirements. The questions and answers below are provided to further explain the requirements.

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

**A:** A levee system is a flood risk reduction 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 reduce risk from temporary flooding.

**Q: What do community officials and citizens need to know about levee systems?**

**A:** Levee systems are designed to provide a *specific level of risk reduction* and require regular maintenance and periodic upgrades to retain that risk-reduction level. Levee systems can be overtopped or fail during larger flood events. 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. Therefore, it is vital that levee owners, community officials, homeowners, and business owners understand the risks associated with living and working in levee-impacted areas and proactive steps they can take to address these risks.

### Additional Information

For more information about Procedure Memorandum No. 43 please visit

<http://www.fema.gov/library/viewRecord.do?id=2511>.

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

**A:** The regulatory requirements of the NFIP that apply to the evaluation and mapping of levee systems and levee-impacted areas are cited at Title 44, Chapter 1, Section 65.10 of the Code of Federal Regulations. Interested parties may access Section 65.10 of the NFIP regulations through the FEMA website at <http://www.fema.gov/library/viewRecord.do?id=2741>.

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

**A:** Compliance with the Section 65.10 requirements rests with communities, levee owners, and/or local project sponsors who are interested in having a levee system accredited on the NFIP flood hazard map—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 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: What are the procedural requirements for evaluating and mapping levee-impacted areas?**

**A:** FEMA has issued the following Procedure Memorandums that provide guidance for mapping levee-impacted areas as clarification to Appendix H of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*:

- Procedure Memorandum No. 34 (PM 34) —*Interim Guidance for Studies Including Levees*
- Procedure Memorandum No. 43 (PM 43)—*Guidelines for Identifying Provisionally Accredited Levees*
- Procedure Memorandum No.45 (PM 45)—*Revisions to Accredited Levee and Provisionally Accredited Levee Notations*
- Procedure Memorandum No. 51 (PM 51)—*Guidance for Mapping of Non-Levee Embankments Previously Identified as Accredited*
- Procedure Memorandum No. 52 (PM 52)—*Guidance for Mapping Processes Associated with Levee Systems*
- Procedure Memorandum No. 53 (PM 53)—*Guidance for Notification and Mapping of Expiring Provisionally Accredited Levee Designations*
- Procedure Memorandum No. 63 (PM 63)—*Guidance for Reviewing Levee Accreditation Submittals*

**Q: Are these Procedure Memorandums available to the public?**

**A:** The Procedure Memorandums above are accessible, along with other FEMA Procedure Memorandums on the FEMA Website: <http://www.fema.gov/ctp-main/guidelines-specifications-flood-hazard-mapping-partners>. These Procedure Memorandums and an assortment of other levee-related guidance documents and resources also are accessible through a dedicated portion of the FEMA Website <http://www.fema.gov/living-levees-its-shared-responsibility/fema-levee-resources-library>.

**Q: Which Procedure Memorandums apply to Provisionally Accredited Levee (PAL) systems?**

**A:** PM 43, PM 45, PM 53, and PM 63 provide guidance on PAL systems.

**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 system owners with additional time to compile and submit the data and documentation necessary to demonstrate compliance with Section 65.10 of the NFIP regulations. On March 16, 2007, FEMA issued a revised version of PM 43 to include guidance on evaluating levees systems that the USACE 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 PAL system?**

**A:** The PAL designation is used for a levee system when FEMA has previously accredited the levee system on an effective FIRM or DFIRM and FEMA is awaiting data and/or documentation that will demonstrate the levee system's compliance with Section 65.10 of the NFIP regulations.

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

**A:** For levee systems that meet the PAL requirement, 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 also adds an explanatory note to the Notes to Users section of the map frame. The area impacted by the PAL system is shown as Zone X (shaded) except for areas of residual flooding, such as ponding areas, which are shown as Special Flood Hazard Areas (SFHAs), areas subject to inundation by the base (1-percent-annual-chance) flood.

Before FEMA designates a levee system as a PAL system, the community or levee owner needs to sign and return an agreement. By signing the agreement, the levee owner/community indicates the levee system currently complies with the Section 65.10 requirements and that the data and documentation required for compliance will be provided within a specified timeframe, which depends on levee system status.

**Q: How was a PAL system initially identified on a DFIRM?**

**A:** To identify a PAL system, FEMA applied the note below at several locations on affected DFIRM panels that became effective before December 1, 2008. The note points to the levee system and was 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 was added to the Notes to Users on DFIRM panels that became 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 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 appear on the DFIRM panels that have become or will become effective after December 1, 2008, are documented in PM 45. Additional information on PM 45 is provided later in this document.

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

**A:** To be eligible for the PAL designation, the levee system must be shown as accredited on the effective Flood Insurance Rate Map (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 website at <http://www.fema.gov/living-levees-its-shared-responsibility/fema-levee-resources-library#2>.

For levee systems in the USACE Program that are shown on the effective FIRM as providing base flood protection but have known deficiencies, FEMA coordinates with the appropriate USACE district to determine if the USACE is offering the one-time-only, 1-year maintenance deficiency period.

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**Q: Why did USACE establish the one-time-only 1-year “maintenance deficiency correction period?”**

**A:** USACE established the “maintenance deficiency correction period” to allow public sponsors/operators to address levee system maintenance deficiencies before the levee system is placed in an inactive status in the USACE Rehabilitation and Inspection Program. Levee systems placed in an inactive status would be ineligible for rehabilitation assistance under Public Law 84-99. USACE identified the deficient levee systems during a survey of levee systems in the USACE Program.

**Q: What happened if a levee system qualified 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 believed that the levee system met Section 65.10 requirements with the exception of maintenance deficiencies, then the community/levee owner might have qualified for a one-time-only 1-year maintenance deficiency correction period. The community/levee owner had 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 had 12 months to submit Section 65.10-compliant data and documentation or a completed PAL application package (if additional time was needed to compile Section 65.10-compliant data and documentation) to show the levee system as accredited. If the community/levee owner did not provide Section 65.10-compliant data and documentation or a completed PAL application within the 12-month period, then FEMA issued 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.

USACE determined whether the one-time-only, 1-year maintenance deficiency correction period was to be offered for a levee system in the USACE Program. If USACE offered the correction period for the levee system, FEMA de-accredited the levee system and remapped 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 USACE offered the correction period for the levee system, the community/levee owner had 1 year to submit Section 65.10-compliant data and documentation or request and be approved for PAL designation (if additional time was needed). If neither was received, then FEMA de-accredited the levee system and issued 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 qualified as a USACE Program Levee System?**

**A:** Levee systems within the USACE Program included (and continue 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 (Public Law 84-99).

**Q: What qualified as a Non-USACE Program Levee System?**

**A:** Non-USACE levee systems included (and continue 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: Did adhering to the PM 43 process delay the release of new or updated DFIRMs?**

**A:** The PM 43 process allowed 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 Section 65.10 of the NFIP regulations. For levee systems with maintenance deficiencies (that were otherwise believed to comply with the requirements of Section 65.10), the release of new DFIRMs could have been delayed up to 1 year to provide the community/levee owner with additional time to correct 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 levee-impacted areas. The PM 43 process allowed community officials and the public to have the most current flood hazard and risk information while the community or levee system owner was given a reasonable amount of time to compile and submit data and documentation to show compliance with Section 65.10 requirements.