



Provisionally Accredited Levees

May 2007

For more information on levees, please visit
FEMA's Web site at:

www.fema.gov/plan/prevent/fhm/lv_intro.shtm.





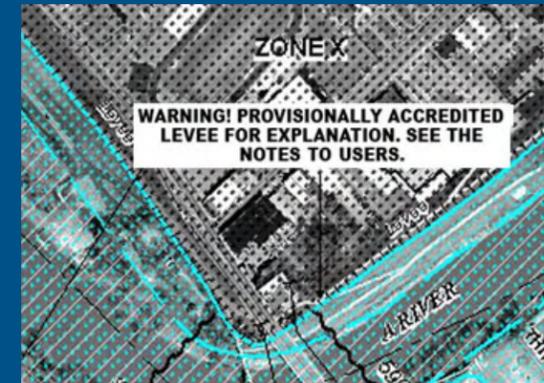
How Will FEMA Map Levees?

FEMA's mapping requirements are designed to provide the people living and working behind the levee with appropriate risk information so that they may minimize damage and loss of life. It is important to note that FEMA does not evaluate the performance of a levee—this is the responsibility of the levee owner. FEMA is responsible for establishing mapping standards and risk determination zones and reflecting these determinations on flood maps.



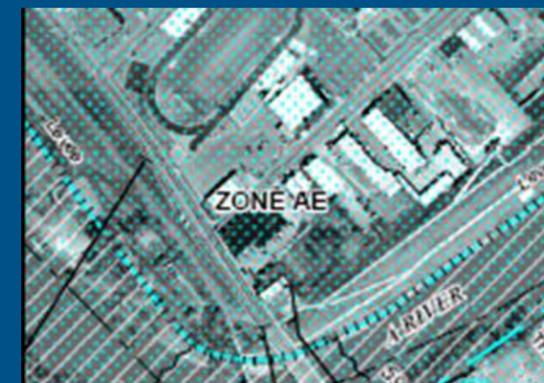
Levee Accredited on FIRM

An accredited levee is a levee that FEMA shows on a FIRM as providing protection from the 1-percent-annual-chance or greater flood. This determination is based on the submittal of data and documentation as required by the NFIP regulations. The area landward of an accredited levee is shown as Zone X (shaded) on the FIRM except for areas of residual flooding, such as ponding areas, which will be shown as Special Flood Hazard Area. Flood insurance is not mandatory in Zone X (shaded); however, it is strongly encouraged for all structures in areas behind levees.



Provisionally Accredited Levee (PAL)

A PAL is a designation for a levee that FEMA has previously accredited with providing 1-percent-annual-chance flood protection on an effective FIRM, and for which FEMA is awaiting data and/or documentation that will show the levee's compliance with NFIP regulations. Before FEMA will designate a levee as a PAL, the community or levee owner will need to sign and return an agreement that indicates that documentation required for compliance with 44 CFR Section 65.10 of the NFIP regulations will be provided within a specified timeframe, depending upon the levee's status. Flood insurance is not mandatory for structures behind a levee with provisional status however, it is strongly encouraged.



Levee Not Accredited or De-accredited on FIRM

If the levee is not shown as providing protection from the 1-percent-annual-chance flood on an effective FIRM, the levee is considered "not accredited" and is mapped as Zone AE or Zone A, depending upon the type of study performed for the area. If the levee was previously shown providing protection from the 1-percent-annual-chance flood on an effective FIRM but does not meet the Provisionally Accredited Levee (PAL) requirements or is no longer eligible for the PAL, FEMA will "de-accredit" the levee and the area landward of the levee will be remapped as Zone AE or Zone A (high-risk flood zones) depending on the type of study performed for the area. Flood insurance will be required for structures with a federally backed mortgage.

Provisionally Accredited Levees

DFIRM as provisionally accredited. In addition, to the community/levee owner/local project sponsor must submit a progress report to FEMA after 12 months to document progress toward obtaining documentation and data to comply with 44 CFR Section 65.10.

If any of the following alternatives occur, FEMA will direct the contractor or mapping partner to remap the area landward of the levee as Zone AE or Zone A, depending upon the type of study performed for the area:

- The community/levee owner/local project sponsor is granted the 1-year correction period, but does not submit the required data within the 1-year correction period.
- The submitted deficiency correction data is determined to be inadequate.
- The 12-month PAL progress report is not provided to FEMA, and the FEMA Regional Office believes the PAL designation should be rescinded.
- A request for a PAL designation and the entire PAL application package is not submitted and approved before the 1-year correction period has elapsed.
- The full documentation necessary to comply with 44 CFR Section 65.10 is not provided within 24 months of the final day of the correction period.
- The data submitted to meet the requirements of 44 CFR Section 65.10 or the PAL application are determined to be inadequate.

Scenario D:

In this scenario, the levee is in the USACE Federal System and is not shown on the effective flood map as providing protection from the 1-percent-annual-chance flood. There is no issue with how to map the area behind the levee because it previously has been determined that the levee does not provide 1-percent-annual-chance flood protection. The flood map will continue to show the levee as not providing 1-percent-annual-chance flood protection unless it is determined that the levee actually does provide this level of protection.

These levee systems will not be eligible for the PAL option.

Scenario E:

In this scenario, the levee is in the USACE Federal System and is shown on the effective flood map as providing protection from the 1-percent-annual-chance flood. However, the USACE has determined, and FEMA has validated, that the levee does not meet an adequate level of protection. Although the levee inspection rating is not listed as fair, poor, or unacceptable, the levee may have failed or experienced overtopping by less than the 1-percent-annual-chance flood.

The FEMA Regional Office will verify the engineering and mapping data used to produce the effective FIRM and determine whether it is the most up-to-date information, based on the best available data. However, the FEMA Regional Office will also determine if better data are available than the data used to produce the effective FIRM. The FEMA Regional Office will coordinate with the USACE district office to either verify the current flood data are the best available or provide the more recent and accurate data. The USACE district office will use the best available data, as identified by the FEMA Regional Office, to determine whether the levee provides an adequate level of protection.

The FEMA Regional Office will notify the community, levee owner, or local project sponsor that the levee no longer provides 1-percent-annual-chance flood protection. FEMA also will provide the reasons for the levee no longer providing protection. If the project sponsor cannot provide the documentation necessary to show compliance with 44 CFR Section 65.10, the area landward of the levee will be mapped as Zone AE or Zone A, depending upon the type of study performed for the area.

These levee systems will not be eligible for the PAL option.



DFIRM Showing Zone AE

Overview

Over one quarter of the counties that the Federal Emergency Management Agency (FEMA) is mapping as part of its Flood Map Modernization (Map Mod) effort has levees shown on their effective flood map. This affects millions of Americans. Therefore, the need to accurately show the risk of flooding behind levees is obvious. Citizens, community officials, builders, insurance agents, lenders, and others need to understand the risk to life and property that resides behind levees—risk that even the best flood-control system can not completely eliminate.

It is important to note that FEMA does not perform levee evaluations—this is the responsibility of the levee owner. A levee owner can be a Federal or State agency, a water management or flood control district, a local community, a levee district, a nonpublic organization, or an individual. The party responsible for operating and maintaining the levee must be a Federal or State agency, an agency created by Federal or State law, or an agency of a community participating in the National Flood Insurance Program (NFIP).

FEMA is responsible for the following:

- Establishing appropriate risk zone determinations and reflecting these determinations on flood maps

- Establishing mapping standards, including minimum design, operation and maintenance criteria that must be met to have a levee recognized as providing flood protection. FEMA will only recognize on its flood maps those levee systems that have met and continue to meet these minimum standards

FEMA is not responsible for the following:

- Designing, operating, certifying, or maintaining levee systems
- Examining levees
- Determining how a structure or system will perform in a flood event

What is a levee?

A levee is a man-made 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.

What is a Provisionally Accredited Levee (PAL)?

A levee that FEMA has previously accredited with providing 1-percent-annual-chance protection on an effective Flood Insurance Rate Map (FIRM) or digital FIRM (DFIRM), and for which FEMA is awaiting data and/or documentation that will demonstrate the levee'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 landward of the levee is shown as Zone X (shaded) except for areas of residual flooding, such as ponding areas, which will be shown as Special Flood Hazard Area.

FEMA's mapping requirements are designed to provide the people living and working behind the levee with appropriate risk information so that they may minimize damage and loss of life. The requirements contain the technical information on design criteria as well as operation and maintenance plans.

The regulatory requirements for FEMA to recognize the flood protection capabilities of levees are found in Title 44, Chapter 1 of the Code of Federal Regulations Section 65.10 (44 CFR Section 65.10), which you may view on FEMA's Web site at www.fema.gov/plan/prevent/fhm/lv_fpm.shtm.

Compliance with 44 CFR Section 65.10 requirements rests with communities, levee owners, and/or local project sponsors—not FEMA. FEMA's responsibility is solely to review the information provided and either accredit the levee as providing 1-percent-annual-chance flood protection on the flood map or, when the levee is shown to be inadequate, to reveal the risk of flooding behind that levee to the community and the public.

To help clarify its evaluation and mapping requirements for areas behind levees, FEMA has issued two Procedure Memorandums—Procedure Memorandum No. 34 (PM 34) and Procedure Memorandum No. 43 (PM 43). You may view the PMs on FEMA's Web site at www.fema.gov/plan/prevent/fhm/gs_memos.shtm.

On August 22, 2005, FEMA issued PM 34 – *Interim Guidance for Studies Including Levees* – to help clarify the responsibility of community officials or other parties seeking recognition of a levee in providing information on levees identified during a study/mapping project. PM 34 provided clarification of procedures to minimize delays in near-term study/mapping

projects and to aid mapping partners in properly assessing how to handle levee mapping issues.

Documentation required to accredit a levee as providing 1-percent-annual-chance flood protection often is outdated or missing altogether. As part of a study/mapping project, PM 34 indicates that it is the levee owner or community's responsibility to provide documentation that the levee meets the requirements of 44 CFR Section 65.10.

Levees that are presently shown as providing 1-percent-annual chance flood protection may qualify for the Provisionally Accredited Levee, or PAL, designation on a DFIRM. PM 43 – *Guidelines for Identifying Provisionally Accredited Levees*, issued as revised on March 16, 2007 – describes five scenarios (see below) for determining when a levee does or does not qualify as a PAL. A PAL is shown in a DFIRM as providing 1-percent annual-chance flood protection and the area landward of the levee is shown as Zone X (shaded) on a flood map except for areas of residual flooding such as ponding areas which will be shown as a Special Flood Hazard Area and labeled Zone A or AE, depending on the type of study performed for the area.

If a levee qualifies for the PAL designation, FEMA will provide the community 90 days to sign and return an agreement that indicates the data and documentation to comply with CFR Section 65.10 requirements will be provided within 24 months of the 90- day agreement period. If the signed agreement is not returned to FEMA within 90 days, the levees in the community are no longer eligible for the PAL designation. If the levee owner believes that the levee meets the requirements of 44 CFR Section 65.10 with the exception of maintenance deficiencies, the levee owner can request a 1-year correction period. If the levee does not meet the PAL requirements (including specific reporting deadlines depending upon the levee's status) the area landward of the levee will be remapped as Zone AE or Zone A depending on the type of study performed for the area.

The U.S. Army Corps of Engineers (USACE) has initiated a national levee inventory and assessment program to identify the condition, location, level of protection, and maintenance activities for all levees within its jurisdiction. This inventory will assist in the assessment of the risk to public safety associated with levees and levee systems across the Nation. The USACE and FEMA are working together throughout the inventory and assessment phase to coordinate this effort with Map Mod activities. The inventory data collected will be used by FEMA and the USACE to categorize levees for which the full

Scenario C:

In this scenario, the levee is in the USACE Federal System and is shown on the effective flood map as providing protection from the 1-percent-annual-chance flood. However, the USACE has determined that the levee's recent inspection ratings are "Fair," "Poor," or "Unacceptable."

Scenario C includes two different possibilities:

Scenario C1:

- The USACE has determined that the levee's recent inspection ratings are listed as fair, poor, or unacceptable;
- The USACE has determined that the project status in the RIP has been switched from active to inactive; and
- The USACE has not provided a 1-year maintenance deficiency correction period for the levee.

The FEMA Regional Office will coordinate with the appropriate USACE District office regarding levee projects in the USACE inventory that have received an inspection rating of fair, poor, or unacceptable. The USACE will evaluate any existing data or project-specific information to determine that the levee does not provide 1-percent-annual-chance flood protection.

Once these projects have been identified, the USACE will send a notification letter to the community/levee owner/local project sponsor to inform them that the levee status has been switched from active to inactive in the USACE RIP and is no longer eligible for PL 84-99 rehabilitation assistance because of maintenance deficiencies. These deficiencies will not allow the levee to meet the minimum requirements of the 44 CFR Section 65.10; thus, the levee does not provide 1-percent-annual-chance flood protection. The deficiencies will be identified in the USACE letter. The USACE District office will provide a copy of this letter to the FEMA Regional Office. The FEMA Regional Office then will send a letter to the community/levee owner/local project sponsor stating that the area landward of the levee will be remapped as Zone AE or Zone A, depending upon the type of study performed for the area.

These levee systems will not be eligible for the PAL option.

Scenario C2:

- The levee has received an fair, poor, or unacceptable inspection rating;
- The levee was in an active status in the USACE RIP prior to September 30, 2005 (FY06); and
- The USACE has offered a one-time-only, 1-year "maintenance deficiency correction period" to remedy the maintenance deficiencies of the levee.

Once these projects have been identified, the USACE will send a notification letter to the community/levee owner/local project sponsor to inform them of the levee's specific maintenance deficiencies. This letter will also inform the community/levee owner/local project sponsor that they are eligible for the one-time-only, 1-year "maintenance deficiency correction period," which provides them 1 year to resolve any levee maintenance deficiencies. The USACE District office will provide a copy of this letter to the FEMA Regional Office.

The FEMA Regional Office then will send a letter to the community/levee owner/local project sponsor explaining the PAL option (Scenario C2) and that FEMA will proceed with the current study/mapping project and will remap the area landward of the levee that will be mapped as Zone AE or Zone A, depending upon the type of study performed for the area. The LFD and effective DFIRM will be delayed until the 1-year correction period has elapsed. For FEMA to remove the Zone AE or Zone A designation landward of the levee, the following requirements must be met within the 1 year correction period:

- Evidence has been provided to show that the maintenance deficiencies have been remedied. This evidence will be provided to the FEMA Regional Office by the appropriate USACE District office.
- All of the requirements listed in 44 CFR Section 65.10 have been addressed or a request for a PAL designation and the entire PAL application package has been submitted.

The FEMA Regional Office will coordinate with the appropriate USACE District regarding levee projects to evaluate and determine the adequacy of any data submitted before the 1-year correction period has elapsed. If the data complies with 44 CFR Section 65.10, FEMA will issue the LFD and show the levee on the effective DFIRM as accredited. Alternatively, if a request for a PAL designation and a PAL application package are submitted and approved before the 1-year correction period has elapsed, then FEMA will issue the LFD and show the levee on the effective

Scenario B:

In this scenario, the levee is in the USACE Federal System and is shown on the effective flood map as providing protection from the 1-percent-annual-chance flood and there is no information indicates the levee does not provide this level of protection. Additionally, the project inspection rating is within an acceptable range (as defined by USACE).

If full documentation to comply with the requirements of 44 CFR Section 65.10 is readily available when the initial notification letter is sent, the FEMA Regional Office will request that the community/levee owner/local project sponsor provide these documents within 30 days. If the community/levee owner/local project sponsor requires time to gather the proper documentation, they should choose to submit the PAL Application Package.

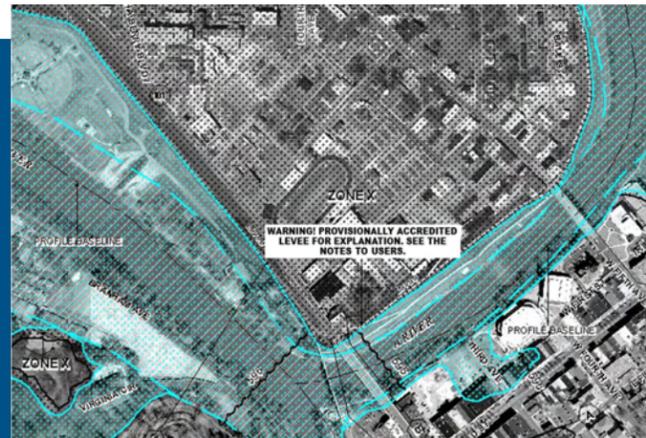
For any community/levee owner/local project sponsor that chooses the PAL, the documentation required to comply with 44 CFR Section 65.10 requirements must be submitted within 24 months of the 91st day following the date of the initial notification letter. Certification by a Registered Professional Engineer must accompany the submitted 44 CFR Section 65.10 data in compliance with Paragraph 65.10(e). An official letter from the USACE certifying that the levee has been adequately designed and constructed to provide 1-percent-annual-chance flood protection may be submitted in lieu of the certification noted above. In addition, the community/levee owner/local project sponsor must submit a progress report to FEMA after 12 months to document progress toward obtaining data and documentation to comply with 44 CFR Section 65.10

Several conditions could occur that may result in the PAL designation being rescinded and FEMA taking immediate action to revise the DFIRM in the area landward of the levee. If any of the following conditions apply, FEMA will direct the contractor or mapping partner to remap the area landward of the levee as Zone AE or Zone A, depending upon the type of study performed for the area:

- The signed PAL agreement is not returned to FEMA within 90 days of the initial notification letter.
- The full documentation for 44 CFR Section 65.10 is not provided within 24 months of the final day of the 90-day agreement period.
- The 12-month PAL progress report is not provided to FEMA, and the FEMA Regional Office believes rescission is necessary.
- The data submitted to meet the requirements of 44 CFR Section 65.10 or the PAL application is determined to be inadequate.

USACE levees are defined to include:

- Levees built by the USACE that were authorized for construction by the U.S. Congress or by USACE continuing authorities (e.g., Section 205);
- Levee projects constructed by non-Federal interests or other (non-USACE) Federal agencies and incorporated into the USACE Federal system by specific congressional action;
- 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.



DFIRM Showing a PAL

documentation required by 44 CFR Section 65.10 is not readily available into the five scenarios described below.

For levees that are included in the USACE Federal program, FEMA will actively coordinate with the appropriate USACE district to determine which projects do not provide protection from the 1-percent-annual-chance flood. In a collaborative effort, existing data or project-specific information will be evaluated to identify and validate levees not accredited in the USACE's inventory.

For levees within its program, the USACE determines which levees will be offered a one-time-only 1-year maintenance deficiency correction period. This period was established to allow public sponsors/levee owners to correct levee maintenance deficiencies before the levee is placed in an inactive status in the USACE Rehabilitation & Inspection Program and becomes ineligible for Public Law 84-99 rehabilitation assistance. After coordinating with FEMA, the USACE will inform communities or levee owners of this status by letter.

It is important that communities and individuals have the most accurate and up-to-date information to make decisions based on the flood risk that exists in areas behind levees. FEMA established this approach to allow the mapping to move forward for levees meeting the criteria identified in the scenarios below. This approach also gives communities and levee owners a specified timeframe for the submittal of the full documentation necessary to show compliance with 44 CFR Section 65.10.

On the following pages are five possible scenarios for how PM 43 may be applied in different circumstances.

Non-USACE Program levees are defined to include the following:

- Levees not authorized by the U.S. Congress or other Federal agency authority;
- Levees built by other Federal agencies and not incorporated into the USACE Federal system;
- Locally built and maintained levees built by a local community; and
- Privately built by a nonpublic organization or individuals and maintained by a local community.

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

The following Note to Users will be added:

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.

Scenario A

In this scenario, a levee that is not in the U.S. Army Corps of Engineers (USACE) Federal System (i.e., a non-USACE levee) is shown on the effective flood map as providing protection from the 1-percent-annual-chance flood. This scenario includes two different possibilities.

In this case, the FEMA Regional Office will send a letter to the appropriate levee owner or community identifying those levees for which 44 CFR Section 65.10 documentation is needed and provide a copy of this letter to the appropriate USACE district office. The FEMA letter will describe the PAL option and a potential option for a one-time-only, 1-year “maintenance deficiency correction period” associated with maintenance-deficient levees. This letter will also request that the community/levee owner submit, within 90 days, one of the following:

- A signed agreement stating that, to the best of the community’s/levee owner’s knowledge, the levee in question meets 44 CFR Section 65.10 requirements and all requirements for a PAL application package. This is called Scenario A1.
- A signed letter stating that the community/levee owner has been notified of the one-time-only, 1-year “maintenance deficiency correction period” and agrees to proceed according to the associated process and requirements. This one time-only “maintenance deficiency correction period” will expire 1 year from the 91st day following the date of the initial notification letter. This is called Scenario A2.



DFIRM Showing a PAL

Scenario A1:

If the community/levee owner believes that the levee meets 44 CFR Section 65.10 requirements at that time, then they may qualify for Scenario A1.

If the full documentation required to show compliance with 44 CFR Section 65.10 is readily available when the initial notification letter is sent, FEMA will request that the community/levee owner provide these documents within 30 days. If additional time is required to gather the proper documentation, the community/levee owner will choose to submit the PAL application package. For any community/levee owner that chooses the PAL option, the requirements for 44 CFR Section 65.10 must be submitted within 24 months of the 91st day following the date of the initial notification letter. Certification by a Registered Professional Engineer must accompany the submitted 44 CFR Section 65.10 data in compliance with Paragraph 65.10(e). In addition, the community/levee owner must submit a progress report to FEMA after 12 months to document progress toward obtaining 44 CFR Section 65.10 data and documentation.

Several conditions exist that may require FEMA to take immediate action to rescind the PAL designation and revise the DFIRM to show the area landward of the levee as Zone AE or Zone A (depending upon the type of study performed for the area):

- Neither the signed PAL agreement nor a request for a maintenance deficiency correction period is returned to FEMA before the 91st day following the date of the notification letter;
- The full documentation required for compliance with 44 CFR Section 65.10 is not provided within 24 months of the 91st day following the date of the initial notification letter; or
- The 12-month progress report is not provided to FEMA, and the FEMA Regional Office believes the PAL agreement should be rescinded.

Scenario A2:

If the community/levee owner believes that the levee meets 44 CFR Section 65.10 requirements with the exception of maintenance deficiencies, then they may qualify for Scenario A2.

Once the community/levee owner determines that maintenance deficiencies exist, the community/levee owner will have 90 days from the date of the initial notification letter to submit a signed letter requesting the maintenance deficiency correction period. At a minimum, this letter must clearly state:

- The only grounds for the levee in question not currently meeting the 44 CFR Section 65.10 requirements or PAL requirements are maintenance issues; and
- Within the 1-year “maintenance deficiency correction period,” the community/ levee owner can remedy the maintenance deficiencies and submit one of the following:
 - All documentation necessary to comply with the requirements listed in 44 CFR Section 65.10; or
 - A request for a PAL designation and the entire PAL application package (PAL application requirements listed below).

If the community/levee owner submits a response before the 91st day following the date of the initial notification letter, the FEMA Regional Office will notify the community/ levee owner that the current study/mapping project will move forward and show the area landward of the levee as Zone AE or Zone A (depending upon the type of study performed for the area). The notification will state that the Letter of Final Determination (LFD) and effective DFIRM will be delayed until the 1-year correction period has elapsed. For FEMA to remove the Zone AE or Zone A designation landward of the levee, the community and/or levee owner must submit the following within the 1-year correction period:

- All the requirements listed in 44 CFR Section 65.10; or
- A request for a PAL designation and the entire PAL application package (PAL application package requirements listed below).

If all the data and documents required to comply with 44 CFR Section 65.10 are submitted before the 1-year correction period has elapsed, FEMA will issue the LFD and show the levee on the effective DFIRM as accredited. However, if a request for a PAL designation and a PAL

application package are submitted and approved before the 1-year correction period has elapsed, then FEMA will issue the LFD and show the levee on the effective DFIRM as provisionally accredited. In addition, for the PAL option, the community/levee owner must provide a progress report to the FEMA Regional Office after 12 months to document progress toward obtaining 44 CFR Section 65.10 data

If any of the following alternatives occur, FEMA will direct the contractor or mapping partner to remap the area landward of the levee as Zone AE or Zone A, depending upon the type of study performed for the area:

- The community/levee owner does not submit a signed response letter before the 91st day following the date of the initial notification letter.
- The community/levee owner is granted the 1-year correction period, but does not submit the required data within the 1-year correction period.
- The submitted deficiency correction data are determined to be inadequate.
- A request for a PAL designation and the entire PAL application package is not submitted and approved before the 1-year correction period has elapsed.
- The 12-month PAL progress report is not provided to FEMA, and the FEMA Regional Office believes the PAL designation should be rescinded.
- The full data and documentation required to comply with 44 CFR Section 65.10 is not provided within 24 months of the final day of the correction period.
- The data and documentation submitted to meet the requirements of 44 CFR Section 65.10 or the PAL application is determined to be inadequate.