



FEMA



Levee Certification vs. Accreditation

What is Levee Certification?

Levee certification is the process that deals specifically with the design and physical condition of the levee, and is the responsibility of the levee owner or community in charge of the levee's operations and maintenance. Certification must be completed for the levee to be eligible for accreditation by the Federal Emergency Management Agency (FEMA). Certification consists of documentation, signed and sealed by a registered Professional Engineer, as defined in Chapter 44 of the Code of Federal Regulations (44 CFR), Section 65.2. This documentation must state the following:

- The levee meets the requirements of 44 CFR, Section 65.10
- The data is accurate to the best of the certifier's knowledge
- The analyses are performed correctly and in accordance with sound engineering practices

This documentation is provided to FEMA to demonstrate that a registered Professional Engineer certified the levee, and meets the specific criteria and standards to provide risk reduction from at least the one-percent-annual-chance flood. Once the levee meets the other requirements of 44 CFR 65.10, FEMA can accredit the levee and show the area behind it as being a moderate-risk area on a Flood Insurance Rate Map (FIRM). If a community or levee owner wants the area behind a levee to be shown as reducing risk from the one-percent-annual-chance flood, they must first complete the process for having the levee certified.

How is a Levee Certified?

To certify a levee, the community or levee owner must work with a licensed engineer or a Federal agency responsible for levee design to develop and certify documentation that the levee meets design construction standards for at least the one-percent-annual-chance flood. *Levee certification does not warrant or guarantee performance*, and it is the responsibility of the levee owner to ensure the levee is being maintained and operated properly.



Levees

FEMA defines a levee as 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 a level of protection from temporary flooding.”

Levees reduce the risk of flooding, but do not eliminate all flood risk. As levees age, their ability to reduce this risk can change and regular maintenance is required to retain this critical ability. In serious flood events, levees can fail or be overtopped and, when this happens, the flooding that follows can be catastrophic.

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What is Accreditation?

A levee cannot be accredited until the certification process is completed. FEMA accredits a levee as providing adequate risk reduction on the FIRM if the certification and adopted operation and maintenance plan provided by the levee owner are confirmed to be adequate. An operations and maintenance plan specifies key operating parameters and limits, maintenance procedures and schedules, and documentation methods. FEMA's accreditation is not a health and safety standard – it only affects insurance and building requirements.

An area impacted by an accredited levee is shown as a moderate-risk area, and is labeled Zone X (shaded) on a FIRM. In this case, the National Flood Insurance Program (NFIP) floodplain management regulations do not have a mandatory flood insurance purchase requirement. However, FEMA recommends the purchase of flood insurance due to the risk of flooding from potential levee failure or overtopping.

If the levee is not accredited, the area will be mapped as a high-risk area, known as a Special Flood Hazard Area, or SFHA. In this case, the NFIP floodplain management regulations must be enforced and the federal mandatory purchase of flood insurance applies.

FEMA's Role

FEMA does not own, operate, maintain, inspect, or certify levees. FEMA's role is limited to identifying and mapping the level of flood risk associated with levees and only accredits them where data showing compliance with 44 CFR 65.10 is provided by the community, levee owner, or other interested parties. FEMA has a responsibility to the public to identify the risks associated with levees that are either not certified or no longer compliant with 44 CFR 65.10. Areas behind non-accredited levees will be shown on FIRMs as a high-risk floodplain.

What is a Provisionally Accredited Levee or PAL?

FEMA created the PAL designation to facilitate the certification and accreditation process for communities unable to readily provide certification documents, but who reasonably expect levees in the community to provide one-percent-annual-chance flood risk reduction. A PAL is a designation for a levee that FEMA previously accredited on an effective FIRM, and is now awaiting certified data and/or documentation to show the levee remains compliant with NFIP regulations. Levees with structural deficiencies are not eligible for the PAL designation. However, a PAL may

include a 12-month period for the correction of maintenance deficiencies.

A community or levee owner's failure to provide full documentation of the status of a levee does not mean the levee doesn't provide the designated level of risk reduction. However, it does impact how the levee will be mapped on a FIRM because it will be de-accredited, and the impacted area will be mapped as an SFHA.

Before FEMA will apply the PAL designation to a levee, the community or levee owner must sign and return an agreement that indicates the data and documentation required for accreditation will be provided within 24 months or less. The procedures for PALs are clarified and documented in FEMA Procedure Memorandum No. 43, *Guidelines for Identifying Provisionally Accredited Levees*.



For More Information

Living with levees is a shared responsibility. It is important for both levee owners and those who live and work near levees to understand the risk associated with levees. FEMA has a number of resources available for further information about levees, including the certification and accreditation process. Below are links to additional information:

- A levee-specific webpage has been set up on the FEMA.gov. Please visit <http://www.fema.gov/living-levees-its-shared-responsibility>.
- For additional information on NFIP criteria for accrediting levees, visit: www.fema.gov/library/viewRecord.do?id=2517.
- For more background on Provisionally Accredited Levees, download the fact sheet at: www.fema.gov/library/viewRecord.do?id=1987.
- For more specific information regarding levee construction and restoration, visit: <http://www.fema.gov/living-levees-its-shared-responsibility/levee-system-construction-restoration-projects>
- For additional information on Procedure Memorandums visit: <http://www.fema.gov/ctp-main/guidelines-specifications-flood-hazard-mapping-partners>.

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