Levee Integrity

The following conditions are examples of conditions that will lessen the integrity of a levee system and/or flood control project and may result in a Corps of Engineers determination that the levee system does not meet Corps of Engineers standards:

• Burrow holes (animal or man-made)

• Tree growth and excessive vegetation growth (roots degrade structure/tree weight causes undue stress)

- Erosion
- Encroachments
- Deteriorated pipes

Repair Requirements

The following lists a few, but not all, considerations for PL84-99 repairs:

- If emergency supplemental funds are not congressionally authorized for PL84-99 repairs, repairs will be prioritized by HQUSACE.
- Rehabilitation Assistance projects must have a favorable Benefit-to-Cost Ratio (i.e., > 1.0) in accordance with the Principles and Guidelines contained in Chapter 6, ER 1105-2-100, regarding National Economic Development (NED) Benefit Cost Analysis.

• It is the levee districts responsibility to provide borrow materials to repair their respective levee. Levee districts are encouraged to be proactive and seek lands available for borrow prior to a flood event.

When additional soil is required in order to complete the repair, a borrow site is required. A borrow site is a location where soil is removed to be used in the repair of damages to earthen levees. In order for federal funding to be used for a levee repair, the borrow site must be approved by the Corps.

Things To Remember

- Levees do not eliminate flood risk.
- The number one goal of the Levee Safety Program is public safety.
- It is important to communicate accurate and timely information about the risk of living and working behind levees so informed decisions can be made about safety.
- Levee safety is a component of a broader flood risk management approach.
- A sustainable, system-wide, and collaborative approach is the most effective way to manage and assess levees and other flood risk reduction methods.
- A levee system is only as strong as its weakest levee.
- Levee safety is a shared responsibility.

National Levee Database

The National Levee Database (NLD) allows users to search and visualize attributes of levees and floodwalls relevant to flood fighting, design, construction, operation, maintenance, repair and inspection.

To access the database, visit <u>http://nld.usace.army.mil</u>



For more information on the PL84-99 Levee Rehabilitation Program, visit <u>www.mvs.usace.army.mil</u> or call (314) 331-8000



PL84-99

Purpose of the PL84-99 Program

The program is a partnered solution to flood damage similar to hazard insurance one may have on their house. While there is always a level of risk for those who live behind a levee, public safety is paramount to the Corps and additional inspections are added when they are necessary.

Enrollment in the Corps Rehabilitation and Inspection Program makes a levee system eligible for Public Law 84-99 (PL 84-99) assistance. PL84-99 provides reimbursement for specific damages to levees that result from high-water events.

The levee sponsor enrolls in the program and provides levee maintenance to a standard level that is acceptable to the Corps. This maintenance and proper operation of the levee prevents routine damages and reduces the possibility of levee failure.

In the case of severe flood-related levee damage to a properly maintained levee, the Corps provides post-damage assistance.

Responsibilities of the sponsor and the Corps are set out in the program guidance documents. To view a PDF of the Levee Owner's Manual for Non-Federal Flood Control Works, go here: www.mvs.usace.army.mil/LeveeOwnersManual.pdf.

Ratings given to a levee system as a result of the USACE inspections are used to determine if a project is eligible for PL84-99 assistance.

Though rare, levee systems can remain "active" in PL84-99 if there is an approved design deficiency addressing the deficient item and there are no other "Unacceptable" items contributing to the overall system.

A levee system can also remain "active" if a System-Wide Improvement Framework plan has been approved and milestones are being met.

PL84-99 and Inspection Results

A levee safety inspection program is necessary to inspect, monitor and record inspection results and ensure stakeholders are doing what is necessary for levee integrity. Inspection results notify stakeholders of deficiencies that, once fixed, will reduce the flood risk to those behind the levee.

The U.S. Army Corps of Engineers conducts routine inspections as well as periodic inspections. USACE conducts periodic inspections every five years.

An "M" rating means there is one or more items rated as Minimally Acceptable or one or more items rated as Unacceptable and an engineering determination concludes that the Unacceptable items would not prevent the system from performing as intended during the next flood event.

The system remains active in PL84-99 during the time allowed to make needed corrections (typically two years). If the sponsor does not present USACE with proof the deficiencies were corrected within two years, the system becomes inactive in PL84-99.

"U" rating means one or more items are rated as Unacceptable and would prevent the system from performing as intended.

A "U" rating makes the levee system inactive in PL84-99. The Levee System will be considered "active" in PL84-99 when "U" rated deficiencies are corrected.

The Corps of Engineers will provide assistance during a flood fight to levee systems regardless of the rating they receive.

Repairs Under PL84-99

U.S. Army Corps of Engineers policy regarding repairs to levee systems and flood control projects damaged by floods is as follows:

Federally constructed or enhanced & locally maintained systems (in PL 84-99 program):

Qualifying damages will be repaired by the federal government at 100 percent federal cost. Pending letter of request by maintaining authority and funding by Congress.

Non-federally constructed & locally maintained systems (in PL 84-99 program):

Qualifying damages will be repaired by the federal government at 80 percent federal/20 percent local cost share (pending letter of request by maintaining authority and funding by Congress).

Federally constructed or enhanced/locally maintained systems AND non-federally constructed or enhanced/locally maintained systems (NOT in PL 84-99 program):

Are not eligible for rehabilitation funds under PL 84-99 rehabilitation and inspection program.

NOTE: Repairs can only be made to restore the levee system to pre-event conditions. No improvements or enhancements with federal funding are authorized.

