

Living Behind Levees

Information for Property Owners

LEVEES: PROTECTION WITH RISK

The United States has thousands of miles of levees — usually earthen embankments 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. Many levees were first put in place by farmers to protect agricultural areas from frequent flooding. They date back as much as 150 years. Others have been designed to protect urban areas and were typically built to higher standards used by the U.S. Army Corps of Engineers. However, no levee provides full protection from flooding.

All levees are designed to provide a *specific level of protection* and can be overtopped in larger flood events. Levees require regular maintenance to retain their level of protection. The fact is, levees can and do decay over time, and maintenance can become a serious challenge. When levees do fail, or are overtopped, they fail catastrophically — the flood damage may be more significant than if the levee was not there. For these reasons, the millions of people affected by levees need to understand the flood risks they face and take steps to address them.

FEMA'S ROLE

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) manages the National Flood Insurance Program (NFIP), the

cornerstone of the nation's strategy for preparing communities for flood disasters. The NFIP was created to reduce flood damages by identifying flood risks, encouraging sound community floodplain management practices and providing flood insurance.

FEMA is updating the nation's flood hazard data and maps, called Flood Map Modernization. Accurately identifying the flood risk behind levees is an important element of Flood Map Modernization. Levees are present in one out of every four counties being remapped.

FLOOD HAZARD MAPS IDENTIFY THE RISKS

Flood hazard maps (also known as Flood Insurance Rate Maps, or FIRMs) show the high-risk areas where there is a one-percent chance of flooding in any given year. They also indicate the low- to moderate-risk areas with a less than one-percent annual-chance of flooding.

Assessing flood risk for areas behind levees is complex. Among the many factors the assessment must take into account are the actual elevations that a one-percent-annual-chance flood will reach and the ability of the levee to contain such floodwaters. FEMA has criteria for recognizing levees as protecting against the one-percent-annual-chance flood. However, FEMA does not examine structures or systems to determine how they will perform in a flood event. The levee owner is responsible for providing documentation to show that the levee meets the criteria.

ACCREDITING A LEVEE DOES NOT GUARANTEE PROTECTION

When flood hazard maps identify the area behind a levee as being protected against the one percent annual chance flood, the levee is said to be *accredited*: it has met FEMA's accreditation criteria. However, an accredited levee does not guarantee protection.

FEMA flood maps identifying levees will carry a warning that overtopping or failure of the levee, dike or other structure is possible, and that flood insurance and adherence to evacuation procedures are strongly recommended.

FOR MORE INFORMATION, VISIT

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





If a levee meets FEMA criteria, the flood hazard map will show the area behind the levee as a moderate risk zone. If it does not, the map will show the area as a high-risk area, or Special Flood Hazard Area (SFHA). The SFHA is the area flooded by the one-percent-annual-chance flood. The chart below shows how FEMA depicts these designations on flood maps and the requirements and options for flood insurance behind levees.

IF THE LEVEE...	THE FEMA FLOOD MAP WILL SHOW THIS FLOOD RISK...	AND THESE FLOOD INSURANCE REQUIREMENTS AND OPTIONS WILL APPLY...
Is not currently shown as providing protection from the one percent annual chance flood. (Non Accredited)	High flood risk , with areas behind levees shown as being in a Special Flood Hazard Area. (Area shown as A or AE zone on the map)	Flood insurance is required for structures with a federally backed mortgage. Insurance rates for buildings constructed after the date of the initial FIRM will be based on the height of the lowest floor as compared to the base flood elevation.
Provides protection from the one percent annual chance flood. (Accredited)	Moderate flood risk , but flooding is still possible. (Shown as B or shaded X zone on the map)	There is no mandatory insurance purchase requirement in B or shaded X zone. Lower cost Preferred Risk Policies are available for most buildings in B or X zones.
No longer meets the minimum standards to be shown as providing protection from the one percent annual chance flood. (No Longer Accredited)	High flood risk , with areas behind levees shown as being in a Special Flood Hazard Area. (Shown as A, AE, AH, AO, V or VE zone)	Flood insurance is required for structures with a federally backed mortgage. Grandfathering saves money. Buildings covered by flood insurance prior to the effective date of new maps can be grandfathered in at more favorable insurance rates.
Is temporarily shown as providing protection from the one percent annual chance flood while additional documentation is being gathered.	Moderate flood risk. Areas behind levees are shown as being behind a Provisionally Accredited Levee, or PAL. (Area shown as a shaded X zone on the map pending re accreditation)	There is no mandatory insurance purchase requirement in B or shaded X zone, but flood insurance is strongly recommended. Lower cost Preferred Risk flood insurance is available for most buildings in B or X zones.

*For more detailed information about levees and flood risk zones, visit www.fema.gov/plan/prevent/fhm/lv_intro.shtm.

STEPS PROPERTY OWNERS CAN TAKE

If you live behind a levee, there are things you can do to protect yourself and reduce the impact of flood events. First, be sure you understand your risk for flooding. Local officials can provide more information about the flood risk based on the location of the property. Second, obtain flood insurance — it is critically important to financially protect your investment. Finally, be aware of and always adhere to local evacuation procedures.