



FEMA



# The Facts about Levees

Those living and working in communities with levees share in the responsibility for knowing the flood risk associated with these earthen structures; their role in safeguarding their family, home, and business when one fails; and the steps to be taken now to mitigate the damages a levee can cause when overtopped or fails. The truth is levees can and do fail, but being prepared will help those affected to quickly pick up the pieces and move forward as a family and a community.

To clarify misconceptions about levees, the following facts provide the truth for living and working near levees.

## **MYTH: A levee is the same as a dam.**

**FACT:** Dams and levees are an important part of our country's infrastructure; however, they are not the same. A levee is a man-made structure usually an earthen embankment, designed and constructed alongside a river or other water's edge to manage or prevent water flow into specific land regions. A dam, on the other hand, is a massive man-made barrier stretching across the length of a river or body of water to divert or capture water flow thus creating lakes and reservoirs and often providing a place for recreation and hydroelectric power for electricity. Levees help create higher, sturdier boundaries than a river's or water's natural banks and are built to reduce the risk of flooding in a community from a certain level of flooding event. They are *not* built to hold back *all* floods. Dams are built to withhold massive amounts of water, releasing only as much as their operators intend.

## **MYTH: I'm safe because I live behind a levee.**

**FACT:** Over the past 30 years, on average, flooding has resulted in more fatalities in the U.S. than any other weather-related cause. Levees reduce risk from flooding events, but they do not eliminate it. There is always the chance a flood will exceed the capacity of a levee, no matter how well it is built. Levees are designed to manage a certain amount of floodwater and can be overtopped or fail during flood events exceeding the level for which they were designed. Levee failures can also be caused by structural failures resulting from improper maintenance, inadequate foundations, seismic activity, erosion, seepage, and burrowing animals. When a levee does fail, the result can be more catastrophic than if the levee had not been present. By understanding levees only reduce the risk levee associated with floods, residents, business owners, and communities can actively prepare for these events by considering protective measures such as purchasing flood insurance; flood-proofing buildings; reporting any visible levee problems; learning more about in-progress and planned projects impacting area levees;

**Floods happen.** Given enough time, levees will eventually be overtopped or damaged by a flood exceeding the levee's capacity or breach, resulting in significant flooding.

**Levees are not floodproof.** Levees reduce the risk of flooding; they do not *eliminate* the risk of flooding.

**Living with levees is a shared responsibility.** If you live behind a levee, you are responsible for knowing the threat you face from flooding. Do not assume someone else is doing this for you.

**The actions you take today could save lives and property tomorrow.** Just a few inches of water in your home or business can cause tens of thousands of dollars in damage. Be prepared for a flood. Buy flood insurance now as there typically is a 30-day waiting period before coverage becomes effective.

## **For More Information**

FEMA has a variety of resources available to provide you with more information to help you understand levees and the flood risk behind them.

- For more information about being prepared before, during and after a flood, visit:

<http://www.fema.gov/national-flood-insurance-program>

- To see how levees work and how they can fail, visit [http://www.floodsmart.gov/floodsmart/pages/flooding\\_flood\\_risks/levee\\_simulator.jsp](http://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/levee_simulator.jsp).

- For more information on levees, please visit <http://www.fema.gov/living-levees-information-homeowners-renters-business-owners-and-general-public>

- For more information on flood insurance for your home or business or to find an agent, please visit the FloodSmart website at: [www.FloodSmart.gov](http://www.FloodSmart.gov)

- For more information on flood hazard mapping, please visit: <http://www.fema.gov/national-flood-insurance-program-flood-hazard-mapping>

- To find your home on a FIRM, visit the FEMA Map Service Center at: [www.msc.fema.gov](http://www.msc.fema.gov)

# RiskMAP

Increasing Resilience Together

and adhering to local floodplain management regulations and evacuation procedures. As a home or business owner, the better prepared you are, the more quickly you will recover when the next flood occurs.

### **MYTH: Levees last forever, whether maintained or not.**

**FACT:** Like most structures, levees decay over time and do not always perform as intended. Some levees were originally built by citizens to protect their properties from flooding while others were subsequently built by various Federal, State or local entities. The levee owner is responsible for ensuring the levee is maintained and operated properly. They are also responsible for providing the Federal Emergency Management Agency (FEMA) evidence from a licensed Professional Engineer or Federal agency the levee meets current design, construction, maintenance, and operation standards to provide protection from the one-percent-annual-chance flood, known as the base flood.

### **MYTH: If a levee fails the government will bail me out.**

**FACT:** The Federal government can provide assistance only when a disaster is declared by the President; consequently, it is not always available. When declared, assistance usually takes the form of a low-interest loan which individuals must repay, in addition to making their existing mortgage payments. A few inches of floodwater can cause tens of thousands of dollars in damage. And as the water rises, so too will the costs.

The government's job is to make citizens aware of their risk. Most local officials have adopted protocols and procedures for ensuring public safety. However, *ensuring public safety is everyone's responsibility.*

At highest risk are residents who live in floodprone areas and have a structure that, if flooded, would be expensive or impossible to replace. FEMA encourages citizens and communities to prepare for a flood, the most common and widespread of all natural disasters. There are many steps one can take to reduce the risk from floods caused by a levee failure, including:

- Learn more about in-progress and planned levee projects that may have an impact on your flood risk
- Purchase flood insurance from the National Flood Insurance Program (NFIP), even if you live in a moderate- or low-risk area behind an accredited levee

- When building or substantially improving your building, adhere to local floodplain management regulations
- Familiarize yourself with local evacuation procedures and have a family or business emergency plan in place
- Consider floodproofing and other protective measures such as elevating furnaces, water heaters and electrical panels and seal basement walls with waterproofing compounds to avoid seepage

If you live behind a levee, you are responsible for knowing the threat you face from flooding. Do not assume someone else is doing this for you.

### **MYTH: FEMA owns and operates levees.**

**FACT:** Nearly 85 percent of levees are *locally* owned and maintained. The rest are overseen by the U.S. Army Corp of Engineers (USACE) or other Federal or State agencies. FEMA does not build, own, operate, maintain, or certify levees. It is the responsibility of the levee's owner (e.g., local community, county, levee board, State, USACE) to provide to FEMA evidence from a licensed Professional Engineer or Federal agency that the levee meets or exceeds minimum Federal requirements for reducing flood risks. FEMA's levee responsibilities include identifying flood hazards and assessing flood risks in levee-impacted areas and overseeing the NFIP. More specifically, FEMA performs the following activities:

- Determines and establishes appropriate flood risk zone designations in areas behind levees and reflects those zones on Flood Insurance Rate Maps (FIRMs); and
- Establishes mapping standards (design, operations, and maintenance criteria) to accredit levees that reduce the risks associated with at least the base flood.

FEMA is *not* authorized to:

- Implement or fund the design, construction, certification, operation, or maintenance of levee systems,
- Inspect or evaluate levee systems, or
- Determine how an individual structure or system will perform during a flood event or provide the funding for such a determination.

Levee owners and/or the community are responsible for operating and maintaining levees so they continuously provide at least the minimum Federal requirement for reducing the risk of flooding for citizens living and working behind a levee.