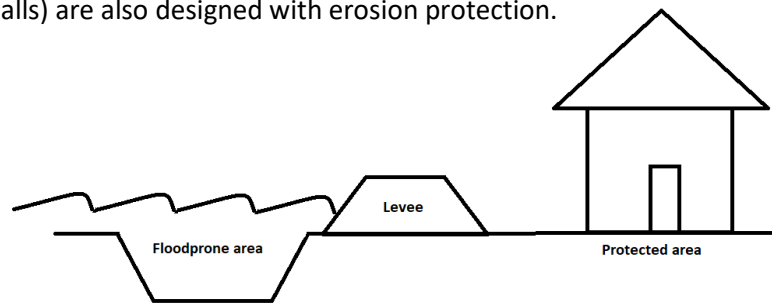


LEEVE SAFETY FACT SHEET

Did you know that your property is protected by a levee, but is still located in a floodplain? The Federal Emergency Management Agency (FEMA) has identified your property as being in a Shaded Zone X – Other Flood Hazard Area on their Flood Insurance Rate Maps. This means that if the levee were to fail, your property may be impacted by floodwaters.

Q: What is a levee?

A: FEMA defines a levee as “a manmade 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.” Essentially, a levee is a barrier that keeps floodwaters from flooding adjacent areas that are lower than the levee. In Pima County, levees (including floodwalls) are also designed with erosion protection.



Q: What does a levee protect and how much water does it hold back?

A: The level of protection offered by a levee is typically described in terms of the flood size or the storm event (5-year, 10-year, 100-year storm) that the levee is capable of containing. However, flood risks change over time and the levee may not be adequately designed for larger events that may occur in the future. FEMA-accredited levees provide protection from the 100-year flood, also called the base flood.

Q: Who maintains a levee?

A: The Pima County Regional Flood Control District (District) inspects and maintains 15 levee systems accredited by FEMA. The District performs inspections annually including after large floods to look for signs of failure.

Q: What are the signs of levee failure?

A: If you live behind a levee, you should know the threat you face from flooding. Levees can fail due to floods that are larger than the design of the levee for or from natural processes such as:

- Overtopping – When the flood is too big and cannot be contained, which is the most common threat associated with levees.
- Breaching – When a levee gives way to floodwaters.
- Erosion – A reduction or loss of sediment along a levee bank.
- Slumping – Settling or sagging of the levee or its foundation.
- Seepage – The movement of water through or under a levee.
- Vegetation – Roots can allow seepage, or canopies can make it hard to spot hazards.
- Infrastructure that is associated with a levee can also malfunction.

Q: What other infrastructure is on a levee?

A: Flap gates are the most common pieces of infrastructure installed on levees. These flap gates allow water to flow only in one direction and used to drain stormwater from the protected areas through the levee and into the major watercourse. Once water passes through a flap gate, it is designed to automatically close so that water from the major watercourse does not flow into the protected area.

Q: What do I do if I see signs of a levee failure?

A: If you see anything out of the ordinary, do not hesitate to contact the District. If a levee failure has occurred or seems imminent, call 911 immediately, then call the District at (520) 724-4600.

Q: What else should I know about a levee?

A: FEMA considers property protected by a levee as a moderate risk floodprone area. While levees do protect property, there is always a risk the infrastructure may not perform as designed during a flood:

- Flooding will happen and every levee will be tested against a flood eventually. The force of floodwaters against a levee can impact the integrity of the structure and can cause it to breach during or even after a flood event.
- The risks associated with flooding and a levee breach will vary. Be responsible for knowing the threat of flooding.
- Levees reduce the risk of flooding, but not every levee is floodproof. A levee is designed to protect against the base flood, but larger events can occur and overtop the levee.
- Actions now can save lives and property later. Help the District ensure the levee is well maintained by contacting the District if you see anything out of the ordinary.

Q: What are the preventative steps I can take to protect myself from flooding?

A: There are preventative measures you can take to reduce the effects of flood damage:

- Purchase flood insurance now to protect yourself against a potential of levee failure. Flood damage is typically not covered by a homeowner's standard insurance policy, and federal disaster assistance usually comes in the form of a loan that must be repaid. There is a 30-day waiting period for a flood insurance policy to become effective, so do not wait until the threat of levee failure is imminent before obtaining flood insurance.
- Store important documents or family heirlooms in a location above ground level. Elevate electrical equipment to avoid electrocution.
- Prepare an emergency kit that includes flashlights, batteries, clothes, and other necessary items in case of flooding or an electrical outage.
- Prepare an evacuation route to high ground or local shelters if an evacuation order is issued. Not all roadways are designed to be passable during flood events. Find out which roads are accessible ahead of time and establish a family meeting location.
- Check with the District or your local jurisdiction to see if a Floodplain Use Permit is required prior to improving your property. Never excavate soil, landscape, or modify or build near a levee without first obtaining the proper certifications from the appropriate officials.