

Temporary Perimeter Flood Barrier

Overview

- Temporary perimeter flood barriers can be purchased and installed prior to flooding events in order to prevent flood waters from entering a structure.
- As these temporary barriers require active installation prior to flood events, installation of the barriers should be designed to be quick and easy.
- Types of temporary perimeter flood barriers:
 - Standard water-filled perimeter barriers (do not require specific measurements but are often bulky)
 - Standard sand-filled perimeter barriers (do not require specific measurements but are heavy and bulky)
 - Custom perimeter barriers (for structures that have a unique shape or for owners needing a light-weight barrier option)
- If the temporary flood barriers must be filled with water, the structure owner will need access to a water source.
- Installation of these barriers will require at least two people.
- Even with flood barrier installation, there will still be some water infiltration. A dewatering system like a sump pump may be necessary.
- Wrapping of the barriers will help reduce seepage.
- If the amount of flooding exceeds the capacity of the structure's walls, the sudden release of flood waters can cause more damage to the structure.
- Temporary perimeter flood barriers are typically recommended for commercial properties or remote residential properties as they require extensive manpower and a storage facility.



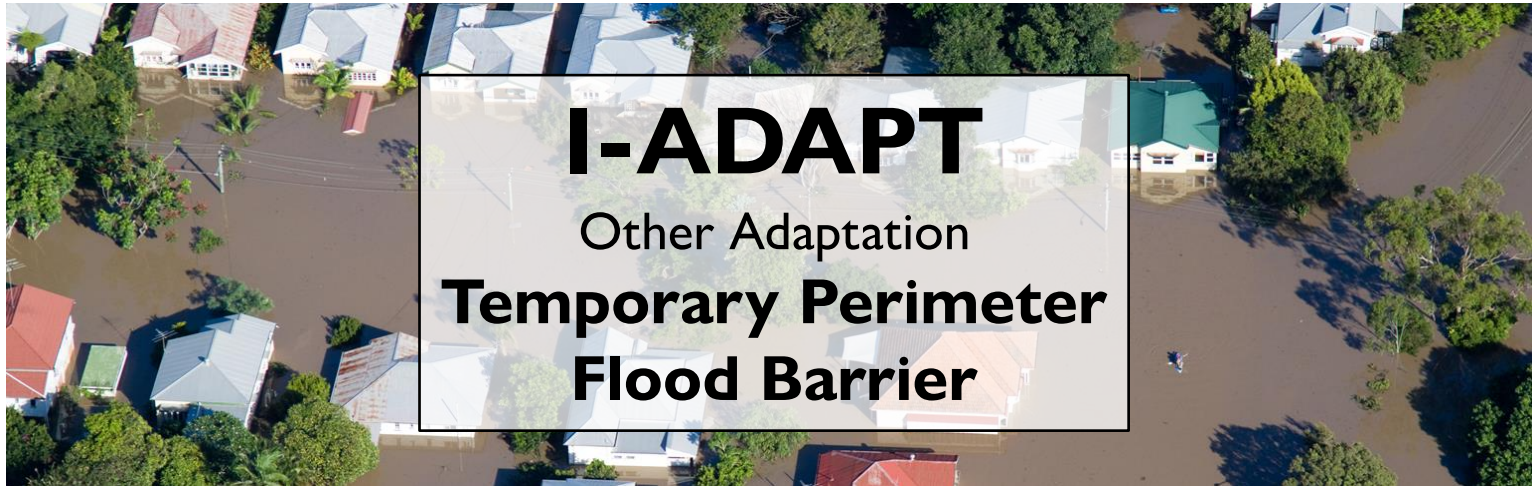
Key Takeaways

During flood events, water can cause extensive damage to unprotected structures.

Structures that are not floodproofed and cannot be adapted through other strategies will require extensive perimeter protection from floodwaters.

Temporary perimeter flood barriers can be used to protect structures. Perimeter flood barriers are installed prior to flood events and act as a temporary floodwall around the structure.





I-ADAPT

Other Adaptation

Temporary Perimeter Flood Barrier

Estimated Costs/Benefits

*U.S. dollars (2022), estimates are subject to change

Potential Costs		Potential Benefits		
Item	Estimate	Post-Flood Recovery Actions	Estimate	
Standard water-filled perimeter barriers	\$40,000-\$60,000	Flood damage recovery (professional clean-up, mold removal, replacement/repair of flood damaged items)	1 inch water	\$10,800-\$53,500+
OR			↓	↓
Standard sand-filled perimeter barriers	\$6,000-\$10,000		3 feet water	\$39,800-\$185,700+
OR				
Custom perimeter barriers	\$58,000-\$70,000			
ESTIMATED TOTAL COST PER 200 feet of barrier	\$6,000-\$70,000	ESTIMATED TOTAL SAVINGS	\$10,800-\$185,700+	

Expected Maintenance

- Periodically check the barrier and fixtures to ensure they haven't corroded or been damaged in any way.
- After flooding events, the barriers will need to be cleaned thoroughly before putting them in storage.

Additional Resources

- [FEMA Homeowner's Guide to Retrofitting](#)

Resources can also be found at <https://de.gov/iadapt>

Additional Actions

- A sump pump may be needed to remove water that has infiltrated the barrier.
- Consider wrapping the barrier for added protection.
- Must be manually installed immediately before each flooding event.
- A storage shed or warehouse may need to be built to house the flood barrier when not in use.

Permitting Agencies

Contacts for permitting requirements include but are not limited to the following:

- Your city and/or county government for local flood ordinances or regulations
- Your city and/or county government for building permits

Who to Contact

- Design professional or engineer
- Floodproofing contractor

Technical definitions and more information are located on the I-ADAPT website: <https://de.gov/iadapt>.



This information is intended to be used for planning purposes. It is not intended to substitute or take precedence over the guidance of design engineers, contractors, utility companies or regulatory agencies.

For more information, contact DNREC's Division of Climate, Coastal and Energy at DNREC_IADAPT@Delaware.gov

