

Elevate Storage Shed

Overview

- Sheds below the Base Flood Elevation line (BFE) may be destroyed during a flooding event. Additionally, sheds can become a hazard during flooding events. Sheds can alter flooding conditions by increasing the wave and/or debris impact forces for the primary structure and/or neighboring structures.
- In order to move a shed out of the path of potential flood waters, the shed can be elevated above the Base Flood Elevation line.
- The difficulty of the elevation process varies based on weight, height, complexity of design, shape of the structure, and foundation type.
- Elevation methods:
 - Open foundations such as piers, posts, columns, and piles are used when there is a high risk of wave action or high-velocity flooding.
 - If the shed is light enough and wave action and velocity flooding are not expected, the shed can be elevated onto cinder blocks.
 - Elevation on fill may be possible in non-coastal, non-high-velocity flooding areas.
- Before elevating the shed, it should be thoroughly inspected to ensure there isn't existing damage that will be exacerbated during the elevation process.
- Remove all items from the shed before elevation.



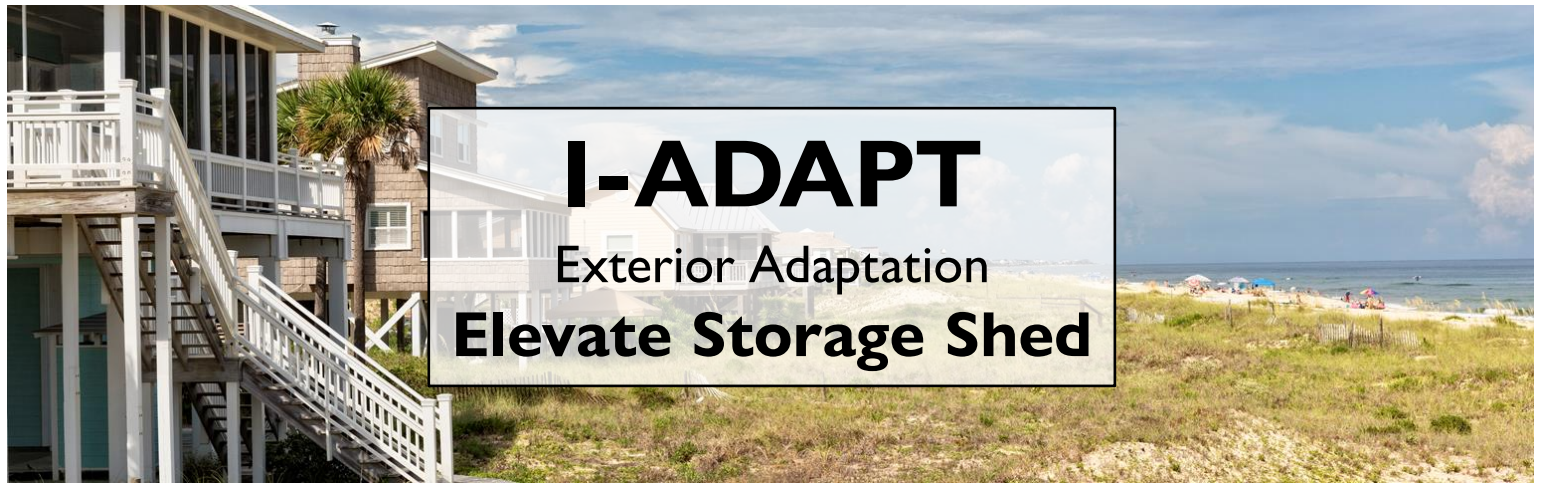
Key Takeaways

During flood events, water can cause extensive damage to any structure within the floodplain, including storage sheds and their contents.

Additionally, if sheds are dislodged during a flood event, they can become projectiles and cause even more damage.

In order to minimize damage costs and flood risks on a property, sheds can be elevated above the Base Flood Elevation line.





I-ADAPT

Exterior Adaptation

Elevate Storage Shed

Estimated Costs/Benefits

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

Potential Costs		Potential Benefits	
Item	Estimate	Post-Flood Recovery Actions	Estimate
Elevation onto pilings	\$1,000-\$8,000	Shed debris removal /demolition	\$600-\$2,000
OR			
Cinder blocks	\$70-\$100		
Shed moving service	\$200-\$500		
OR		New shed	\$1,500-\$10,000
Fill	\$1,000-\$4,000		
Shed moving service	\$200-\$500		
AND			
4-8 stairs	\$120-\$210		
ESTIMATED TOTAL COST (8ftx12ft shed)	\$390-\$8,210	ESTIMATED TOTAL SAVINGS	\$2,100-\$12,000

Additional Actions

- Utility systems may need to be updated.
- Build steps for the shed, if applicable.

Expected Maintenance

- Regular shed maintenance.
- Keep area under shed clear of debris.

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 local sediment and stormwater ordinances or regulations
- Your city and/or county government for building permits
- DNREC Coastal Construction Permit

Who to Contact

- Elevation/general contractor
- Design engineer

Additional Resources

- [FEMA: Accessory Structure](#)
- [FEMA Engineering Principles and Practices for Retrofitting Flood-Prone Residential Structures \(FEMA P-259\)](#)
- [FEMA Homeowner's Guide to Retrofitting \(Chapter 8\)](#)
- [FEMA P-499: Home Builder's Guide to Coastal Construction](#)

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

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

