

Elevate Storage onto Shelving Units

Overview

- Elevating valuable possessions above the Base Flood Elevation line (BFE) will reduce the amount of water damage sustained during a flooding event.
- This strategy can be used within garages, in basements or on the ground floor depending on the location of the BFE and what types of flooding the property experiences.
- Removable elevation platforms can be made relatively easily, providing an option for residents that are renting or leasing the property.
- Storage elevation options:
 - Build your own shelving unit
 - Purchase metal or wooden shelving units
 - Hire a contractor to install permanent shelving
- The higher the stored items are located, the safer they will be from flooding.
- If using removable shelving units, the units may need to be bolted to the ground to minimize the risk of lateral forces moving or knocking over the shelving units during flood events.
- This strategy will not protect the actual building from flood damage.



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Key Takeaways

During flood events, flood water entering the building can cause water damage to personal possessions in the basement, garage, or even on the ground floor.

Furniture and utility equipment may also float, which can cause more flood-related damage inside the structure.

In order to prevent water damage to valuable possessions, elevate stored possessions on platforms or shelves above the Base Flood Elevation line.



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I-ADAPT

Interior Adaptation Elevate Storage onto Shelving Units

Estimated Costs/Benefits

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

Potential Costs			Potential Benefits	
Type of Storage Unit	Item	Estimate	Post-Flooding Recovery Action	Estimate
Do It Yourself wooden shelving unit	7 2x4x8 boards	\$7-\$10 each	Replacement or repair of flood damaged possessions	Value of the damaged possessions
	1.5" screws	\$9-\$20		
	2-4 plywood sheathing	\$40-60 each		
Purchase shelving units	\$100-\$350			
Contractor installation of shelving units	\$500-\$1,500			
ESTIMATED TOTAL COST	\$100-\$1,500		ESTIMATED TOTAL SAVINGS	Cost of items stored below the BFE line

Additional Actions

- If you store items on the shelving below the BFE, you will need to move these items before flooding events.

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

- General contractor

Expected Maintenance

- Periodically check the shelving units or platforms for rot, cracks, or other damage.

Additional Resources

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



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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

