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Why Water Damages are More Damaging Today

Jerry Jones, Certified Restorer, (CR), Certified Mold Remediator (CMR)



Structures and contents, even up to 60 years ago, were all natural materials.



Water damages today differ from water damages of the past. A hundred years ago, few structures in this country had indoor plumbing to generate water damages. Most water damages were caused by roof leaks or flooding in storms. Structures and contents were from natural materials such as clay, wood, paper, cotton, wool, and animal hide. Dyes were derived from leaves, roots, berries, barks, insects, etc. Hardwood floors were made from solid slabs of oak, walnut, pine, or mahogany. Some furniture used veneers, but the vast majority was made of solid wood, oil-stained and oil-based varnished or shellacked.

Jump ahead to today and see the differences. The water creating the damages comes from a gigantic list of new sources: ice-maker connections, washing machine hoses, water beds, HVAC leaks, indoor plumbing leaks/failures/overflows, sprinkler systems, etc. New homes are manufactured or constructed so tightly that additional mechanical ventilation is required to prevent indoor air quality and moisture problems. We are more dependent upon adequate drainage and humidity control systems and consequently suffer more losses when these systems fail. Drying these environments is often slowed by too air-tight environments with poor air exchange rates.

(See comparison on back side)

The changes in building materials and related products have changed the damages resulting from water losses, some for the better and some for the worse. Some of the new products will absorb, hold, and release moisture faster or slower than materials previously used. Sometimes the new

material will resist damage and dry or clean faster than before. Other times the new materials are damaged and less salvable than the older materials. Most new products were introduced to save the builder or manufacturer production costs, though at times the mitigation and repair costs exceed the cheaper replacement costs. Sometimes the newer materials are more available than the old and are chosen to expedite a claim faster. It's a challenge for the professional water damage restorer to take these changes into consideration when mitigating and restoring any loss.

AFTERDISASTER® believes the best solution for a WIN-WIN-WIN result for the property owner, the insurer, and the restoration company together is to mitigate the loss faster, inspect more thoroughly, then communicate better with everyone involved. Call your local Business Center today to discuss ways we can work together to handle water losses faster and more cost effectively through a better understanding of these changes and improved communication. ➡ over



Where are the water absorbing materials? The rugs are synthetic, the "woods" are laminates & veneers—all potentially water absorbing—all expensive to replace when water damaged.

WATER DAMAGES THEN...AND NOW**Building Materials****Plaster Walls** ☞ **Drywall**

Drywall is less expensive and easier to install, but more porous so it absorbs water more readily.

Hardwood ☞ **Particle Board**

Fiberboard, particle board, and OSB replaces hardwoods and plywood in numerous applications such as sub-floors, partitions, sheathing, etc. Most particle board and fiberboard is ruined more easily than plywood in water damage situations.

Treated ☞ **Untreated Woods**

Many wood products were previously pressure treated or coated with additives that prevented or reduced the development of mold, rot, warping and other moisture problems. But many of these products are now banned for environmental or long-term health reasons.

Plaster Ceilings ☞ **Texture**

Ceilings today are sprayed with water soluble acoustical texture. Years ago, painters primed below and added oil based paint to the texture to protect it, but now, water based texture often releases and falls from a damp ceiling. The use of ceiling tiles in suspended ceiling systems present additional challenges in a water damage.

Insulation

The use of building insulation has increased drastically and shifted from organic materials to fiberglass or blown fire retardant cellulose.

Exteriors

Solid brick, stone or cinderblock construction has been replaced with a variety of veneers over wooden construction.

Furniture Finishes**Oil-Based** ☞ **Water-Based**

Older oil-based varnishes and polishes could repel water more easily and longer than water based finishes. Latex and other water-based finishes often allow faster moisture penetration, easier floor covering staining, and easier mold growth. Water-based finishes are also more easily damaged during cleaning.

Floor Coverings**Natural** ☞ **Synthetic**

The manmade fibers nylon, polyester, and olefin are replacing natural fibers such as wool, silk, jute, or cotton in carpets. Olefin especially affects the outcome of many water losses because it holds no water, forcing the water into other available porous materials (such as sub-floors). Carpet backing has shifted from predominantly jute to manmade materials. Cushion is no longer horsehair or waffle natural rubber, it is sponge or dense synthetic rubber materials. Linoleum flooring has been replaced with softer, cushioned no-wax vinyl. Laminate flooring systems, a more durable and affordable alternative to hardwood floors, are very difficult to save in a flooded situation. Less expensive, pre-finished veneered floors have very moisture sensitive components.

Wallcoverings**Paper or Fabric** ☞ **Vinyls**

Wallcoverings have changed from real paper and natural fiber weaves to mass produced vinyl or vinyl coated prints with or without backing. Even the application paste has changed from cellulose to non-organic ingredients to reduce mold growth.

Furnishings**Solid Wood** ☞ **Veneers**

Much furniture that appears to be made from fine woods is actually a thin veneer, laminate or even a printed finish. The assembly has shifted from secure notched joints using waterproof adhesives, screws and barbed nails to flush joints held together with water soluble adhesives and staples or brads. Particle board and fiberboard now support even expensive furniture. Upholstery now includes blends or natural and synthetic fibers with fire retardant and soil repellent coatings that may be either beneficial or harmful in a water damage. ■



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Dennis Sutton, Marketing Representative
Charlotte, NC • 704-849-6400

Myra Taft, Marketing Representative
Charlotte, NC • 704-849-6400

Karla Woodard, Marketing Representative
Greensboro, NC • 336-294-4321

Robert Woods, Marketing Representative
Greensboro, NC • 336-294-4321

Donald Mason, Marketing Representative
Raleigh, NC • 919-862-8600

Debra Morris, Marketing Representative
Raleigh, NC • 919-862-8600

Edited by **Jan Barham**, Marketing Manager, Greensboro, NC.

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