

**Water 101**

presented to guests of

Wisconsin Association of  
School Business Officials

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### Our Company

**Growing in Our Markets**

**2019**  
A new headquarters for our Fox Valley operation allows us to operate on a larger more efficient scale.

**2020**  
Celebrating over 30 years serving our local community, Paul Davis completed construction on a brand new, state of the art, Southeast Wisconsin facility. This new 100,000SF, two-story building set on 10 acres houses over 130 employees, 50 vehicles, and sees all operations in one centralized location.

Southeast Wisconsin

Fox Valley Wisconsin

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### Our Virtues

**Our Goal**

**DELIVER WHAT YOU PROMISE**  
We communicate clear, realistic expectations with our customers and fellow employees. "Under Promise and Over Deliver" is our benchmark for success.

**RESPECT THE INDIVIDUAL**  
We believe everyone must be treated with dignity and respect. We adhere to the Golden Rule: Do unto others as you would have them do unto you.

**HAVE PRIDE IN WHAT YOU DO**  
We take ownership in what we do and we lead by example with a positive "We Will" attitude. We are passionate about making a positive difference for our customers.

**PRACTICE CONTINUOUS IMPROVEMENT**  
We are a learning organization always looking for a better way. We embrace change and keep an open mind, always striving for excellence.

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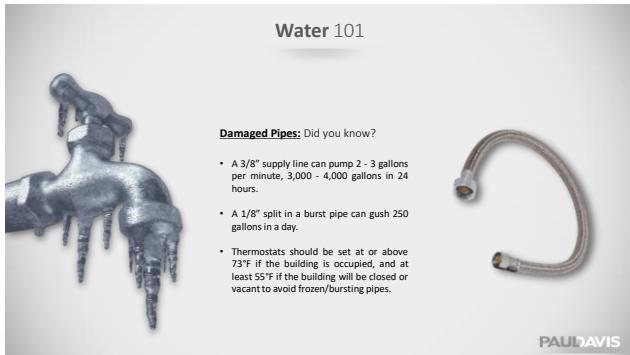
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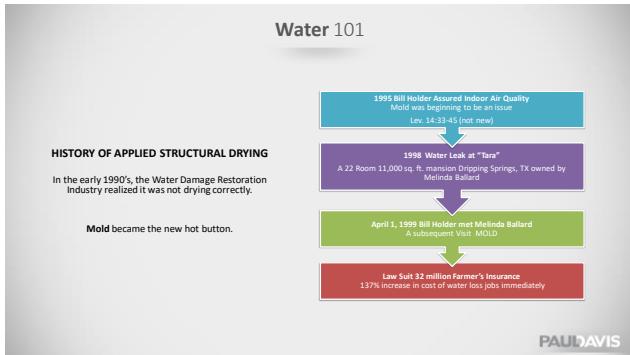
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**Water 101**

**IICRC**  
Institute of Inspection Cleaning  
and Restoration Certification

**Old**      **New**

**Setting the Standard**

**ANSI/IICRC S500-2015** provides a specific set of practical standards for water damage restoration. It does not attempt to teach comprehensive water damage restoration procedures; rather, it provides the foundation for basic principles of proper restoration practices.

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**Water 101**

**Water: Call-to-Action**

Time Stamp	Consequence to Delayed Mitigation
Minutes	Color transference from wood furniture to structural materials
Hours	Engineered wood items swell, irreversible
Days	Permanent staining and potential microbial growth
Weeks	Irreversible damage, odor and stains set

\* IICRC – Water Damage Restoration

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**Time is Critical**

- Time causes ongoing and accelerating deterioration of sanitary conditions.
- Microbial contamination grows at geometric rate until conditions for its growth are eliminated.
- It's a race between the Microbes and the Restoration.

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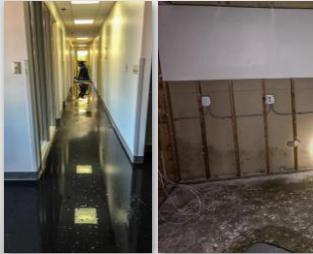
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**Water 101**



**Structural Integrity:** Did you know?

- Water weighs 8.34 lbs. per gallon.
- A sheet of drywall standing upright with its edge sitting in a  $\frac{1}{4}$ " of water can wick water up to 6 inches in less than three hours.
- Water can dissolve a variety of different substances. In fact, water is known as the "universal solvent" because it dissolves more substances than any other liquid.

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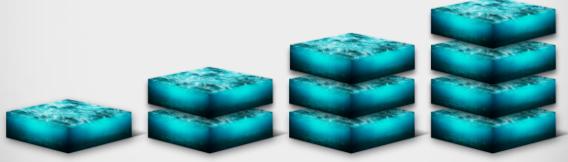
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**Class of Water Damage**

Class refers to the initial determination of the amount of water present and the anticipated rate of evaporation. There are **FOUR** classes in total.



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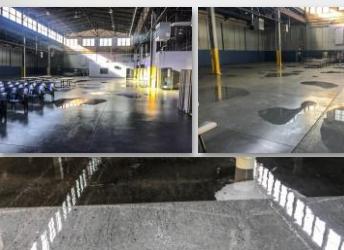
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**Class of Water Damage:** Class 1

- Least amount of water.
- Part of a room or larger areas containing materials that have absorbed minimal moisture. Little or no carpet and pad.

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**Class of Water Damage:** Class 2

- Large amount of water and evaporation. Usually the entire room(s) of carpet and pad. Water has wicked up the walls less than 24".

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**Class of Water Damage:** Class 3

- Greatest amount of water. Water generally comes from overhead and has wicked up the walls greater than 24". Virtually the entire area is wet.

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**Class of Water Damage:** Class 4

- Specialty drying. Consist of materials with low permeance, hardwood, plaster, brick, concrete, stone, crawlspace. Deep pockets of saturation.

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**Category of Water Damage**

Category of water damage refers to the severity or range of contamination.

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**Category of Water Damage:** Category 1

**CLEAN WATER**

- More easily restorable.
- Water originates from a sanitary water source.
- However, this can easily deteriorate to a category 2 or 3 given time and other factors.
- The best line of defense against mold and other deterioration is to ensure that the materials are dried rapidly.

*Water heater leak, broken or frozen water pipe, toilet tank overflow, sink overflow...*

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**Category of Water Damage:** Category 2

**GRAY WATER**

- Presence of organisms with possible health implications. More material and contents may need to be discarded.
- Water contains significant contamination and has potential to cause discomfort or sickness if contacted or consumed by humans.
- Category 2 water can contain potentially unsafe levels of microorganisms or nutrients for microorganisms, as well as other organic or inorganic matter chemical or biological.

*Sump pump failure, washing machine overflow*

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**Category of Water Damage:** Category 3

**BLACK WATER**

- There are serious health exposure risks. Porous materials must be discarded in accordance with IICRC protocol. Biocides may be necessary. Know your customer and use common sense.
- Water is grossly contaminated and can contain pathogenic, toxicogenic or other harmful agents.
- Health and safety of workers is a major concern on a Category 3 loss.

Sewage backup, toilet bowl overflow, flood water or outside water source

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**The Drying Process:** Components

- 1) Extraction
- 2) Air Movement
- 3) Evaporation
- 4) Dehumidification
- 5) Temperature

All drying methods use these five components but in different capacity.

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**The Drying Process:** Components

**EXTRACTION**

- A quick extraction will have the biggest impact on dry times.
- Truck Mount Units increase volume and capabilities
- Portable Extractors provide maximum versatility

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**Water 101**



**Axial Air Mover**

**Centrifugal Air Mover**

**The Drying Process: Components**

**AIR MOVEMENT**

- This is the next essential step in setting up any structure to dry.
- Air movement is vital in promoting rapid evaporation of moisture from damaged areas.
- Fans should be set every 12 – 16 linear feet along walls at a 45 degree angle facing walls.
- Place a fan in each wet closet area.
- Larger rooms may require air movers in the center of the room.

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**Water 101**




**InjectDry Systems**

A specialty system of tools used to dry difficult to reach places within wall cavities and beneath flooring.

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**The Drying Process: Components**

**DEHUMIDIFICATION**

- Moisture gets into the atmosphere causing humidity to increase.
- Vapor pressure also increases and destabilize the air environment.
- Probability of secondary damage greatly increases if left in a humid condition.
- Dehumidifiers are often required to manage all of these factors.
- Effective drying is achieved using evaporation and dehumidification.

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**The Drying Process:** Components

**TEMPERATURE CONTROL**

- Control the temperature in order to control dew point.
- Around 70 degrees is optimal for the temperature.
- The homes HVAC system might be the best dehumidifier available.
- In an open drying system the outside temperature is used.
- Environments like the Southwest are ideal for this.

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**Water 101**



**The Drying Process:** Overall Goals

- To determine what's considered "dry", we must establish drying goals.
- Pre-determined goals are referred to as pre-loss **Moisture Content (MC)**.
- The desired **Moisture Content** varies based upon geographic location and the local temperature.
- **Moisture Meters** measure resistance to electricity or ultrasound and indicate the amount of water in a material.
- Expressed as a % of dry weight, these meters help determine moisture content.

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**Our Services**

Water Damage	Fire Damage	Mold/Environmental	Catastrophe	Other Services
				
Water Mitigation Dehumidification Moisture Control Reconstruction	Site Stabilization Deodorization & Soot Removal Contents Packout & Cleaning Document & Electronics Cleaning Reconstruction	Air Quality Testing Remediation Abatement	Disaster Recovery Debris Removal Temporary Power Pre-loss Disaster Planning Business Interruption Priority Status Reconstruction	General Contracting Trauma Scene Clean Large Scale Clean Building Inspection Tools & Equipment Staff Training Consulting

An end-to-end solution from small to large claims for both mitigation and reconstruction of any size or type.

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Case Study

**Be Prepared.**  
Mitigate Disasters Before They Happen.

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Case Study

**The Anatomy of a Water Loss:**  
Summit View Elementary School

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Case Study

**Elementary School Water Loss**

5 Days before Christmas a pipe break in the fire suppression system floods the second and first floors of the school causing damage to carpet, ceiling tiles, cabinetry & contents.

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**Case Study**

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**Elementary School Water Loss**  
Within just 1 hour of the phone call and only 6 hours after the water loss, Paul Davis was on-site. We had tools, equipment and expertise to begin mitigating damages and analyzing the scope of damage & subsequent repair.

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**Case Study**

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**Elementary School Water Loss**  
The building was completely dried out quickly using proper drying ratios of extraction, air movement, dehumidification, evaporation and temperature. A trailer mount desiccant allowed us the capacity needed to dehumidify such a large space.

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**Case Study**

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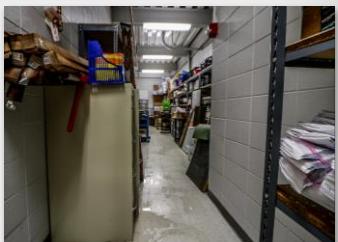
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**Elementary School Water Loss**  
Taking advantage of the school's holiday break, Paul Davis was able to quickly begin restoration work once the school was completely dry.

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**Case Study**



**Elementary School Water Loss**  
Within just 14 days and prior to the return from holiday break, Paul Davis had the school ready for operations as usual.

The Library, multiple classrooms, hallways and common areas were all restored to ensure as little interruption as possible to the students and school faculty.

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**Thank You**



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