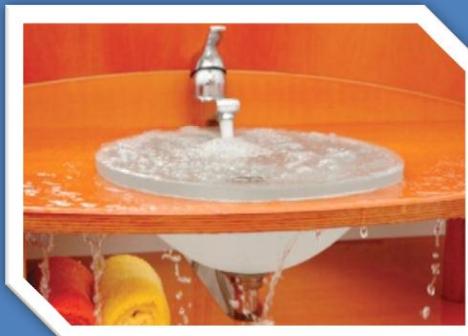
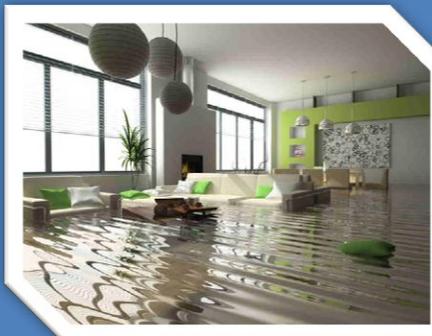


# Water Damage 101

## Water Damage Survival Guide

Darrell Ritchie





***“We wrote this document to try to help you and others who probably have never suffered a disaster of this kind.”***

## Foreword

The average American suffers a water damage issue in their home once every 50 years. So if you are reading this, congratulations, you won the water damage lottery. Ok we acknowledge this is not a time to celebrate but take some comfort knowing you got another 50 years of safe passages in your home or business after you recover from this unfortunate event. You are not alone, 14,000 Americans suffer a water damage emergency in their home or business every day.

We wrote this document to try to help you and others who probably have never suffered a disaster of this kind. Our goal is to educate you on what to do and not to do in an unbiased format. The best advice we can offer you is to find a professional local company to help you through this disaster. Unfortunately, this is not a do it yourself type of problem because if it is not done properly, things can actually get worse or could endanger you or your family’s health.

The data presented here is based on data we have accumulated from 100’s of reputable sources and input from over 200 water damage restoration companies. Special thanks to all these contributors who took their valuable time to assist us in this effort.

In closing, we hope after reading this, this document helps you get through this setback in your life and it facilitates you getting your home or business back to the condition it was before water, sewage, or a flood entered your life.

Kindest Regards,



Paul Robinson  
CEO

[www.leadbyfone.com](http://www.leadbyfone.com)

P.S. We welcome your comments or suggestions. Feel free to email me directly at [probinson@leadbyfone.com](mailto:probinson@leadbyfone.com).

## Table of Contents

<b>Basic Overview.....</b>	<b>4</b>
<b>Types of Water Damage.....</b>	<b>4</b>
Water Damage Scenarios.....	4
Categories of Water .....	6
Basics of Water Damage Restoration .....	7
<b>Carpet Water Damage .....</b>	<b>9</b>
Treating Your Carpet.....	9
Treating Hardwood Floors and Linoleum .....	10
Water Damaged Sheetrock and Drywall .....	11
<b>Hurricane Preparation.....</b>	<b>12</b>
Hurricane Stats.....	12
Hurricane Formation.....	13
Categories of a Hurricane .....	14
Planning Ahead.....	15
Returning Home Afterwards.....	15
<b>Flood Damage .....</b>	<b>16</b>
Flood Stats .....	16
Flood Safety.....	17
Returning To Your Home .....	18
<b>Basements and the 98% Factor.....</b>	<b>18</b>
The 98% Explanation.....	18
Why Basements Are Targets .....	19
The Myth of Basement Waterproofing.....	19
The Concept of Prevention .....	19
Why Normal Restoration Techniques May Be Different .....	20
<b>Mold and the Problems It Causes .....</b>	<b>21</b>
What is Mold?.....	21
Types of Mold.....	21
Health Hazards.....	22

Mold Remediation .....22

**Will My Insurance Cover It?.....23**

Homeowners Policies .....23

Horror Stories .....24

**What to Look For in a Water Damage Company .....24**

The Dangers of Choosing the Wrong Company.....25

What to Look For In a Company .....26

The IICRC and RIA.....27



***“Flash floods are the #1 weather related killer in the United States, with over 200 deaths each year.”***

## Basic Overview

Water damage is best defined as any one of the numerous possible losses caused by the intrusion of water. Water can attack and destroy a material or system through the rotting of wood, rusting of steel or metal, de-laminating of materials such as plywood, as well as the destruction of heating and electrical systems. It can also provide the necessary platform for mold growth.

Water damage may occur quickly as the result of a flash flood, or slowly over time as the result of a leaky pipe or broken window seal. Either one can cause significant damage if not treated promptly.

## Types of Water Damage

It can be clean, dirty, or anywhere in between. Knowing what kind of water problem you have will go a long way towards telling you how to fix it. You should understand the various categories of water and why they are classified as such.

## Water Damage Scenarios

Water damage can occur in any number of ways. Heavy or torrential rains can place undue stress on roofs, causing leaking or in some cases even collapse. The same rains, if heavy enough over a given area during a given time, may result in flooding of the surrounding landscape. Floods may be small enough to affect only one home, or large enough to engulf entire regions.

Flash floods are more dangerous, forming in a matter of minutes and sweeping across the countryside, with little or no warning to those in its path. Flash floods are the #1 weather related killer in the United States, with over 200 deaths each year.

Levees and dams may also break and send water cascading into local communities, causing tremendous damage. This sort of disaster was graphically seen firsthand with Hurricane Katrina and the broken levees in New Orleans in 2005.



New Orleans after Hurricane Katrina

Construction and new development can drastically alter the landscape, resulting in insufficient drainage and runoff. In addition, more houses, parking lots, and roads mean less land to absorb excess water.

On a more local level, water damage may occur in your home as the result of leaky or burst pipes, overflowing sinks or bathtubs, as well as even less desirable situation such as sewage backflow or stopped up toilets.

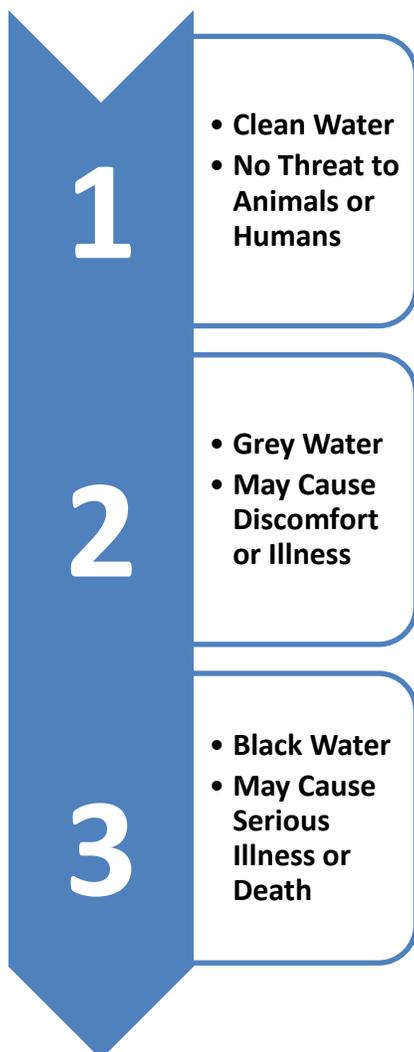
Water is unique in its ability to cause damage both initially and over time. Unlike fire, which confines its damage to one area and can be fairly easily contained, water has the uncanny ability to get into places you might not think to look, and it continues to cause problems and generally wreak havoc for as long as it is allowed to stand.

There are numerous sources for water to leak from in your home, most of which can be prevented by regular inspection and maintenance (more on this in a later section). Even the smallest leaks can end up costing you hundreds of dollars per year in additional costs. The most common causes are the faucets in your kitchen and bathroom sinks, which are used frequently and may develop leaks simply due to “mileage” and a gradual loosening of surrounding joints.

The hose on your washing machine may be another culprit. While generally long lasting, hoses older than five years should be checked regularly. The same rules apply to hoses on the back of your water heater. Even if the leak itself is not major, even small leaks can provide an avenue for the growth of mold.

***“Water is unique  
in its ability to  
cause damage  
both initially and  
over time.”***

## Know the Different Categories of Water



Of all the rooms in your home, the bathroom is probably the most likely source for a water leak. The room is humid and moist most of the time, and broken or cracked grout can lead to mold forming behind tiles, where it may remain hidden for a long time. The spores it produces, however, may contribute to the erosion of air quality in your home.

Of course toilets are a common problem when it comes to water leaks in the home. They constantly have water sitting in them and the plumbing they are attached to is used on a regular basis. Inspect the plumbing running to and from your toilet on a regular basis. If you discover any signs of leakage, have it repaired as soon as possible.

It is important to begin water damage restoration procedures as soon as possible following any sort of flood or water damage event.

## Categories of Water

The type of water damage you have and its treatment depends largely on the category of water involved. According to the IICRC S500 Standards and Reference Guide for Water Damages, water damage is typically defined by one of the three following categories:

### ▪ Category 1 Water

Also known as Clean Water, this is water that is uncontaminated at the source and as such does not pose a threat if exposed to or consumed by humans or animals. Broken water lines or overflowing tubs or sinks would be examples of Clean Water.

### ▪ Category 2 Water

Also known as Grey Water, this water may contain some varying degrees of contaminants at the source and may cause discomfort or illness if exposed to or consumed by humans or animals. Examples of Grey Water would include toilet water with urine present, sump pump failures, and discharge from dishwashers or washing machines.

### ▪ Category 3 Water

Also known as Black Water, this refers to water that is highly contaminated at the source and may cause serious illness or even death if consumed by humans or animals. This water contains



**Water Damage Restoration**

grossly unsanitary agents, harmful bacteria and fungi, and is usually the result of sewage based spills. Other sources may include seawater, rising water from rivers or streams, ground surface water or standing water.

Keep in mind that no Category is permanent, and Category 1 Water may become Category 2 Water if left untreated long enough. Likewise, Category 2 Water should be considered Category 3 if left standing and stagnant for more the 72 hours.

Water damage containing Category 2 or 3 water is best handled by a professional in order to avoid potential health issues.

## **Basics of Water Damage Restoration**

When it comes down to water damage restoration, the operative word in the whole process is “dry”. Everything must be completely dried out before any repairs can be deemed complete. Time is of the essence, because water can continue to cause damage for as long as it is in your home, and subsequent problems such as mold can appear in as little as 48 hours (sooner if you are dealing with Category 3 Water).

Water damage restoration is a very involved process, and you must remember that not all water damage is readily apparent. The novice homeowner or handyman may not always know where to look for hidden problems, and the overall process may take a period of days, weeks, or in some cases even months to correct, making it important to call in a professional.

The basics of water damage restoration can be broken down into four steps:

### **1) Extraction**

This is the process wherein the excess water is removed from the home. Depending on the depth and severity of the spill, either wet-dry vacuum units or gas powered submersible pumps will be utilized. Electric pumps are discouraged as electricity and water do not mix, and any attempt to remove water with a normal vacuum cleaner will only result in the purchase of a new vacuum.

## 4 Steps of Water Damage Removal



Extraction



Drying



Repair



Restoration

Most of the water can be removed from the property using water extraction.

### 2) Drying

Once the excess is out, surfaces may appear dry, but a cursory inspection will reveal they will be wet to the touch. Most every surface has the ability to retain a certain amount of moisture. The only way to remove this moisture is through air circulation. Open all windows and doors to get fresh air moving through the home. High velocity fans, blowers, and dehumidifiers are invaluable tools to help the process along; the more units, the better. Moving them around every few hours or so will insure complete drying coverage. The drying process should take three days to complete.

### 3) Repair

This step involved the cleaning, repair, and disinfecting of all items or structures that were damaged by the water. Carpets will need major treatment, and electrical appliances and systems will need to be inspected by a qualified electrician before further use. This is probably the single most time consuming part of the process.

### 4) Restoration

The final step in the process, this is the process of restoring your home to its pre-loss condition. Restoration may involve the repair or replacing of drywall, flooring, or ceilings, as well as the reconstruction of various areas or rooms in the home. Some water damage is beyond repair, so reconstruction is the only viable option. Re-landscaping may be required to provide proper runoff and drainage for the property. The water restoration service can also document the materials and possessions affected by water damage and use industry pricing guides to determine their proper value. The final steps in the process involve taking care of the final little detail touches designed to return your home to its former beauty and make it ready for the occupants to return.

## Carpet Water Damage

Carpets can add beauty and class to a home. Water damaged carpets can bring frustration and irritation. Know how to take care of and preserve your carpet in the aftermath of water or flood damage.

### Treating Your Carpet

Not many things are more of a headache to clean up than water damaged carpet. Even in the smallest of cases there is always a scramble to get everything dried and cleaned to avoid unsightly stains and musty odors. So you can imagine the damage that even an inch of water in your living room may cause.

In many cases, simply throwing the carpet out and starting over with new would be the preferred course. If you wish to save your carpet, the good news is that you probably can, as long as the carpet has been wet for less than 48 hours, and if the water involved was not sewage based.

You'll need to remove all loose items from the damaged area, then use a pump or shop-vac to remove the excess water. You can get most of the water out this way, and it will also make the carpet easier to lift.

If the carpet was saturated, you will need to take it up at the tacks and remove it outside to dry, preferably flat on a patio or driveway. Make sure it dries flat or it may not reinstall correctly later on.

Remove and dispose of all damp or damaged carpet padding. It cannot be repaired or restored.

Allow the carpet to dry completely. As with most water damage scenarios, you may use high velocity fans or blowers to help the process along. The carpet will need to be dried, cleaned, disinfected, sanitized, and then cleaned again. If this sounds like a lot, it is, but you cannot take shortcuts. You do not want to run the risk of mold or other subsequent problems.

While the carpet is drying, don't forget the flooring beneath. It will likewise need to be dried out, cleaned, and disinfected. Check to make sure there is no warping or cracking. Water can also move

***“If you wish to save your carpet, the good news is that you probably can, as long as the carpet has been wet for less than 48 hours, and if the water involved was not sewage based.”***

***“...in many cases, hardwood flooring can be saved.”***

***“Mold infested flooring should be treated with a mild alkali, such as washing soda or trisodium phosphate.”***

from carpets into drywall, so check for the characteristic staining or swelling that would indicate damage there.

If you discover mold on your carpet, it's over. At this point it is just much less expensive to throw it out and start over again.

## **Treating Hardwood Floors and Linoleum**

Wood floors can absorb a lot of water, which is a bad thing. However, the good news is that in many cases, hardwood flooring can be saved. In the aftermath of water damage, you'll need to treat the flooring by scrubbing it down with a stiff (but non-abrasive) brush, plenty of water and a non-sudsing cleaning agent designed to remove any mud or dirt from corners, cracks, or crevices.

Hardwood flooring may warp or even crack, so be sure to use a leveler to check for such problems. In some cases, the floor can be nailed back down, or the problem may be addressed by planing the floor in the buckled region. It won't do anything for the floor's aesthetic appearance, but an area rug can cover it and it is far less expensive than replacing the whole thing.



Mold is a common problem and a major threat to wet wood. Mold infested flooring should be treated with a mild alkali, such as washing soda or trisodium phosphate. Use between four to six tablespoons per each gallon of water. Scrub the floor down and rinse well. If the mold has firmly embedded itself in the finish, the finish will need to be removed. Use an abrasive cleaner along with a solution containing six table spoons of trisodium phosphate and one cup of chlorine bleach per gallon of water. This should remove all or most of the finish. Sand down the wood and bleach any remaining spots of mold that you find. The priority is to make sure the mold is removed before any refinishing or painting takes place. Be sure to apply a wood preservative before any repainting or refinishing.

***“Linoleum is a more common target for water damage, as it is found in bathrooms, kitchens, and entryways, where liquid spills or just walking in with wet shoes can cause water to become trapped under the linoleum tiles.”***

Linoleum is a more common target for water damage, as it is found in bathrooms, kitchens, and entryways, where liquid spills or just walking in with wet shoes can cause water to become trapped under the linoleum tiles. This usually causes stains, swelling or warping of the linoleum, or weakening of the adhesive that holds the linoleum to the floor. The key to successful replacement of the linoleum is found in the preparation.

You’ll need to use a utility knife to remove the water damaged tile. Next, be sure the flooring beneath has not been damaged by the water. That would make for a more extensive repair process.

Scrape off the old adhesive and other debris until the floor is clean.

Use warm water with a cleaning solution to thoroughly wash down the flooring and clean off any type of remaining dirt. Make sure the floor is clean and free of adhesive residue or other debris.

As always, the key word in the operation is “dry”. Make sure everything is cleaned and dried before proceeding. Failure to do so will result in problems such as mold.

You now have the choice of two different types of linoleum to use. There is the peel-and-stick type, as well as one that needs a mortar-like adhesive that is spread over the surface to be adhered to. Follow the directions thoroughly for the type you choose, then use a roller to smooth out any air bubbles and to help the new tiles make firm contact with the flooring beneath. Let the new tiles sit undisturbed for a day to ensure a firm bond.

## **Water Damaged Sheetrock and Drywall**

Water damage to sheetrock and drywall is especially frustrating because, while it can be repaired, the cost to do so is often more expensive than the cost to replace it.

Water damage to sheetrock and drywall is usually manifested by swelling or staining of the affected area. If the drywall has been painted, the staining may not be readily apparent.

Painting over water damage will not solve the problem. It may take some time, but the damage will show through again.



**Always wear a face mask when working around drywall products to prevent inhalation of dust chemicals, or other potentially harmful agents.**

Drywall and sheetrock can usually be cut in a horizontal fashion, somewhere above the level of the damage, and removed. You can then replace it with an undamaged piece, prepare it, and paint it. If you are less of a handy man and aren't sure you can successfully hide the seam, then replace the whole piece. Either way, the end result will look far more attractive than simply trying to cover it up.

Be sure that the wall cavity is dry and water free. Leaving water unattended in any area like this can make it a prime candidate for mold. Any water damaged insulation should be removed and replaced.

Always avoid touching any moldy drywall. If you notice a mold growth, have a professional remove it for you.

You should also wear a face mask when working around drywall products to prevent inhalation of dust chemicals, or other potentially harmful agents.

## Hurricane Preparation

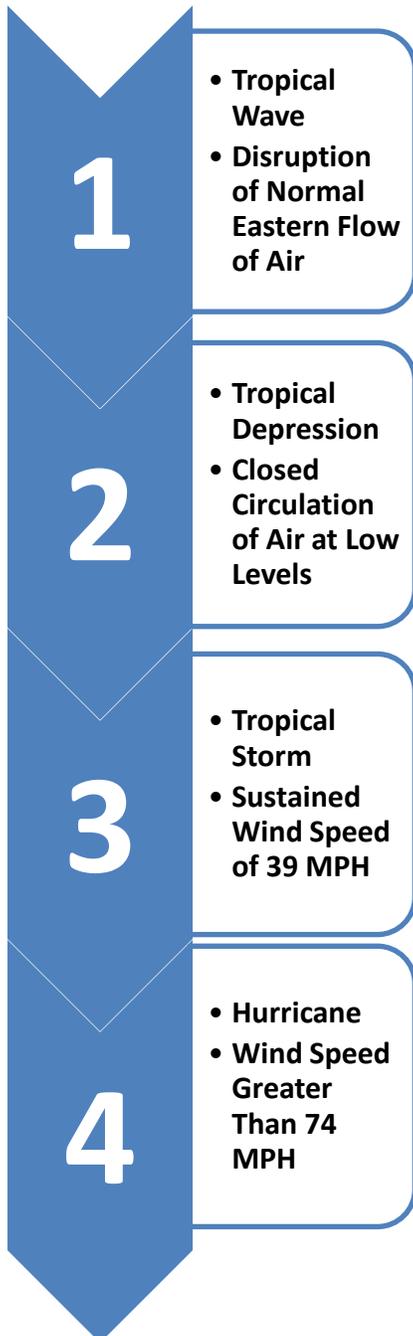
Hurricanes are an active threat along our coasts for six months out of every year, and their effects can be felt hundreds of miles inland. Don't be caught unaware; have your evacuation plan in place and your home defended when Mother Nature turns malevolent.

## Hurricane Stats

If there is one weather event that is guaranteed to cause water related damage, it would be a hurricane. Hurricanes occur all over the world, with the bulk of them forming in the western Pacific. In some years, the Philippines alone are hit by more than 20 storms in a single season.

In the south Atlantic, Hurricane Season typically runs from June until early November, and coastal residents, particularly in Florida, keep a watchful eye on the Atlantic basin to the east, no doubt wondering which tropical depressions will evolve into full blown hurricanes targeting the eastern seaboard.

## The Steps of Hurricane Formation



## Hurricane Formation

The formation of hurricanes can happen in a matter of days, or in a matter of hours. Some hurricanes give a good amount of warning and some strike without any, so it is good to know the signs and what to watch out for. There are four steps in the formation of a hurricane:

### 1) A Tropical Wave

A disruption of the normal tropical eastern flow of air, low level convergence coupled with falling pressure and showers.

### 2) A Tropical Depression

A closed circulation of air at low levels, with falling barometric pressures and stronger winds.

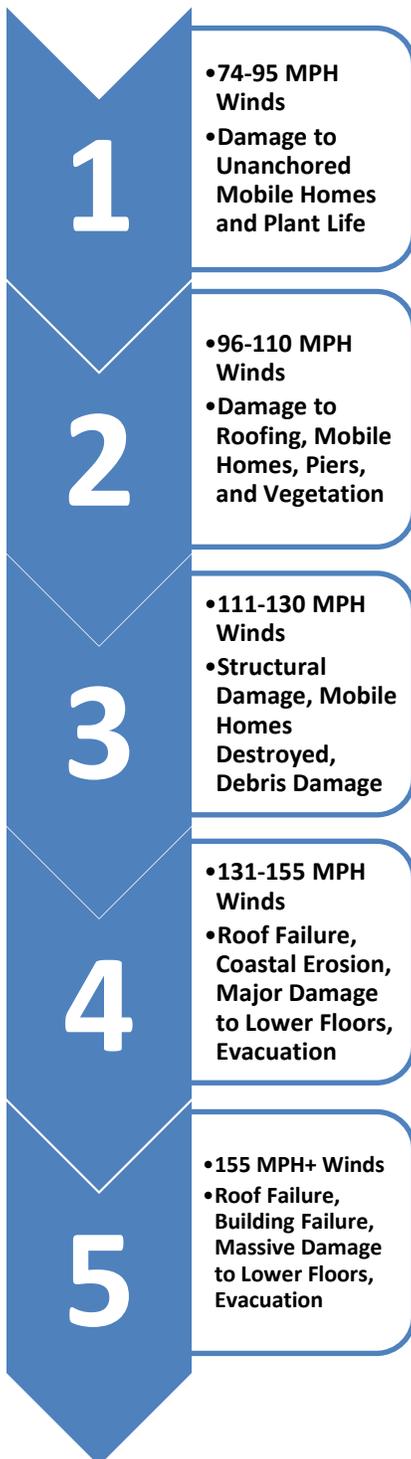
### 3) A Tropical Storm

Classified once winds reach a sustained speed of 39 mph. If atmospheric conditions continue to deteriorate, the next step in the process is...

### 4) Hurricane

Classified once winds have reached a sustained speed of more than 74 mph.

## Hurricane Categories



## Categories of a Hurricane

Once formed, hurricanes fall into five different and progressively more destructive categories:

- **Category 1**

Sustained winds of 74-95 mph. Damage potential primarily for unanchored mobile homes, shrubbery, and trees. Some coastal flooding is possible

- **Category 2**

Sustained winds of 96-110 mph. Some damage to roofing or buildings, considerable damage to mobile homes, piers, and vegetation. Some low lying areas may flood 2-4 hours before arrival of center. Small craft may break anchorages or moorings.

- **Category 3**

Sustained winds of 111-130 mph. Some structural damage is possible, mobile homes are destroyed, coastal flooding may destroy smaller structures and cause debris damage to larger structures, inland flooding may reach inland for 8 miles or more.

- **Category 4**

Sustained winds of 131-155 mph. Complete roof failure on smaller residences, major coastal erosion, major damage to lower floors of structures near the shore, massive evacuation of residential areas up to 6 miles inland.

- **Category 5**

Sustained winds over 155 mph. Complete roof failure on residences and industrial buildings, some complete building failures, major damage to lower floors of all structures within 500 yards of the shoreline, massive evacuation of residential areas within 5 to 10 miles of the shoreline.

## Hurricane Preparation

- Develop a Family Disaster Plan
- Create a Disaster Supply Kit
- Have a Place to Go
- Secure Your Home



## Planning Ahead

Despite such disastrous and catastrophic hurricanes as Katrina and Wilma over the last few years, studies have consistently shown that citizens along the US coast remain woefully unprepared for such a storm. The National Hurricane Center has put forth the following guidelines for successful hurricane preparation.

**Develop a Family Disaster Plan** – Know which evacuation area you live in. Make sure that everyone knows the escape routes, and have a place to meet if you get separated. Check your insurance and make sure that you have obtained adequate flood insurance.

**Create a Disaster Supply Kit**- Hurricane evacuation means that you may end up living in a motel or relief shelter under some fairly primitive conditions for a while. Have a Disaster Supply Kit ready to go with you, well stocked with bottled water, non-perishable food items, blankets, pillows, clothing, first aid, toiletries, flashlight and radio with spare batteries, cash and credit cards (keep in mind that ATMs may not be functional), as well as any important documents such as insurance, medical records, bank account numbers, etc.

**Have a Place to Go** – if you are ordered to evacuate, do so immediately. Ideally you should have arrangements with family or friends in adjoining counties or states, but if a hotel is the only option, do your best to make reservations before you leave. Be sure your car is filled with gas since you may find yourself sitting in traffic for long periods.

**Secure Your Home** – you need to protect all the areas where wind or water could enter your home. Shuttering or boarding your windows will help, as will locking doors, and reinforcing garage doors. Contact your local building code official to find out what would be appropriate for your home in the event of an emergency.

## Returning Home Afterward

After the flood waters have receded, wait until you get the all clear from local emergency management before returning to your home. Look out for any downed power lines and report any that you see to local authorities.

*“Beware of wildlife. Animals displaced from their homes by flood waters may take up residence in yours.”*

Floods account for  
**40%**  
 of all Natural Disasters

When you arrive home, don't be in a hurry to go inside. Remember that flood waters can literally shift a building on its foundation, making them prone to collapse, so check to verify structural integrity.

Be sure the electricity is shut off at the source. Do this even if the power has been knocked out. The power will come surging back on at some point and you do not wish for it to happen when you are working in flood waters.

You should also shut off the gas. When the power is out, it is quite common to use candles, lanterns, or other open flames for light or heat. A gas leak could prove disastrous.

Beware of wildlife. Animals displaced from their homes by flood waters may take up residence in yours. Use a broom handle or other long pole to turn over furniture and other items to scare away any small animals. Be especially aware of snakes in these conditions.

In the absence of power, you may have to use gas powered generators. Make sure they are placed outside, as they can produce carbon monoxide fumes that can be lethal in enclosed places.

## Flood Damage

Few disasters can ravage a home like a flood. Understanding the cause, what to look for, and how to prepare are the secrets to protecting your home and possessions from flood waters.

## Flood Stats

Floods are the most common natural disaster worldwide, accounting for 40% of all natural disasters. They cause billions of dollars in damage to life and property in the United States every year. With no specific season, they can happen anywhere, and at any time. Unfortunately, only a small percentage of Americans (less than 15%) have any sort of flood insurance at all, although the percentage may be locally higher in extreme flood risk areas.

Certain areas are more prone to flooding than others, and it is certainly prudent for homeowners to be able to evaluate their flood risk. Local emergency management as well as the nation Flood



*“Have an  
evacuation route  
planned,  
preferably one  
that leads to  
higher ground.”*

Insurance Program will have flood maps and histories available to show the locations of high, moderate, and low risk areas.

High risk areas pose a 26% chance of flooding over the life of a thirty year mortgage. All federally or insured mortgage homeowners in these areas are required to purchase flood insurance.

In moderate to low risk areas, the danger of flooding is reduced but not eliminated. Flood insurance is not required, but is recommended.

There are also undetermined risk areas, which means no serious analysis has been conducted. However, the risk of flooding still exists and homeowners are encouraged to buy flood insurance.

Given that floods can occur anywhere, and at any time, it is recommended that homeowners check to make sure their community participates in the National Flood Insurance Program (NFIP) and purchase additional coverage accordingly.

## **Flood Safety**

In the event of a flood, safety is the first concern. If you live in a high flood risk area, be prepared to leave, and if the evacuation order is given, evacuate. You should have a plan already laid out, including the packing of an emergency “go bag”, filled with a change of clothes for several days, any important documents, cash, bottled water, emergency food, a battery powered radio with extra batteries, and anything else you may need.

Have an evacuation route planned, preferably one that leads to higher ground. You should also have the phone number for an out of state relative or family friend, someone you can call and let them know that you are safe.

When evacuating, be particularly aware of your surroundings, especially areas where water is flowing across roadways. You should never walk or drive through flowing water. For starters, depth is deceptive; there may no longer be a road underneath. And even if there is, it only takes six inches of flowing water to knock a grown man off his feet, and two feet of flowing water to float a car. In fact, 70% of flood related deaths are people trapped in their vehicles.

If the worst happens and you do find yourself trapped in your vehicle by rising flood waters, do not attempt to open your door. The weight of the water will be too much. Instead, roll down the window and crawl out that way. If your window will not open, let the car fill with water; the pressure will equalize and the door should open.

Remember that in flash floods, you may not have the benefit of a warning, so it is imperative that you get to higher ground as soon as possible. You may have only seconds or minutes to save your life.

## Returning To Your Home

As with any type of flooding disaster, do not make any attempt to return to your home until the all clear has been given by your local emergency management authorities. When you do, be sure the structure is stable and shut off all utilities at the source before entering.

## Basements and the 98% Factor

So you've got a basement. Congratulations, welcome to the Water Damage Elite. This is the one chapter you might as well memorize because it is the one scenario that is guaranteed.

## The 98% Explanation

Few things in life are guaranteed, unless you want to talk about basement water damage. Studies have shown that 98% of all basements will suffer some form of water damage at some point in their lives. Of course 98% makes it a virtual certainty, so you should be prepared.

Basement flooding is a serious problem, costing hundreds of millions of dollars in damage to homes across the country every year. It is not only an annoyance, but it can affect the structural integrity of your home, contributing to the rotting of the wood, warping of floors, etc. It can also be the source of numerous related health problems, such as those associated with mold (these will be discussed in a later chapter). Asthma and other respiratory problems have been associated with homes suffering from water damage in the basement.

***“Studies have shown that 98% of all basements will suffer some form of water damage at some point in their lives.”***

Recurring basement flooding can also adversely affect the property value on your home, since standing water and musty smells aren't exactly selling points.

## Why Basements Are Targets

Of course basements are natural targets for water, which is not unexpected. They are the single lowest lying location in any home or business, and excess water prefers to run downhill. No matter what part of the world you may live in,  $2 + 2 =$  a flooded basement.

If you live in an area that is prone to flooding, or if you have invested in the expense of finishing your basement, then it becomes imperative to find every measure you can to protect your basement from the elements.

## The Myth of Basement Waterproofing

The most obvious solution to basement flooding would be to simply waterproof your basement. While there are products on the market claiming to be able to do this, the truth is that no method is 100% foolproof. If the waters rise enough, your basement will flood. Don't be fooled by what someone tries to sell you as a quick fix.

## The Concept of Prevention

Since you cannot totally insulate your basement from the threat of flooding or water damage, you have to find another way of dealing with the problem. In games of competition, most coaches subscribe to the theory that the best defense is a great offense. Since basement flooding is a prime case of you against the elements, this is advice to take to heart. You may not be able to wholly prevent water from invading your basement, but you can take steps to minimize the damage potential.

You want to be proactive in checking your basement regularly for problems, no matter how small they might be, and repairing them before they can grow up and become large problems, or worse, before they become fruitful and multiply. Some of these preventative measures may cost money, but the cost will pale in comparison to



***“Don’t forget to inspect the exterior of your home as well. Clogged gutters or downspouts may be prime culprits when it comes to basement flooding.”***

what you would spend if your basement was overrun by water.

You will want to look for things such as leaking pipes, broken window seals which may allow moisture to enter, or cracks in the walls which may allow access to your basement by groundwater. If you have a sump pump or sump pit setup, make sure it is operating within normal parameters. Some basements have drains inside or just outside; make sure these are unclogged and free of obstructions.

Don’t forget to inspect the exterior of your home as well. Clogged gutters or downspouts may be prime culprits when it comes to basement flooding. A Make sure they are unclogged and flowing freely. Gutters that are filled with leaves or other debris cannot channel the water effectively, meaning that it could end up flowing in all the wrong directions. Likewise, downspouts should be clear and open, and pointing away from your house at appropriate angles.

Even the landscaping surrounding your home can present an unforeseen problem. Make sure the landscaping surrounding your home slopes away from your home for a distance of no less than ten feet. Sometimes landscape work will alter this slope, again causing excess water to run the wrong way. Make sure your slopes appropriately and take steps to correct it if it doesn’t. Ground soil can only hold so much water; once it is saturated (say in the event of torrential rain) it has to go somewhere.

It also can never hurt to bring in a water damage restoration professional. They will know about all of the not-so-obvious places to check for potential problems.

Taking the appropriate preventative steps today will help cut down on the potential for damage in the future.

### **Why Normal Water Restoration Techniques May Be Slightly Different**

In the event that you do find yourself with waterfront property at the foot of your basement stairs, the normal water damage restoration procedures still apply. The water will need to be removed and everything dried out completely. You can open windows and doors to circulate air, and use shop-vacs or pumps to remove the excess.



*“Under natural conditions, mold is harmless and poses no threat. When mold is present in an enclosed, inhabited area... everything changes.”*

Be warned, however, if you are dealing with a depth of several feet of water, do not pump it out too quickly. This can result in sudden pressure changes, which can weaken the walls and make them prone to collapse. Pump out the water at the rate of about a foot a day and you should be okay. Basements are naturally humid areas, so you can use a digital moisture meter to determine when humidity levels are back within normal parameters.

## Mold and the Problems It Causes

Mold is a natural and vital part of our outdoor environment, and a dangerous health hazard when growing in your home. Learn about mold growth, reproduction, and remediation, and keep your family safe and healthy.

### What Is Mold?

Mold is a type of fungus that grows on plants and fibers, primarily in damp, musty locations, and serves as a natural recycling agent, breaking down dead organic matter. It is a natural and important part of our environment. Mold reproduces by way of spores, which travel through the air, and take root in places where there is ample moisture for them to grow.

Under natural conditions, mold is harmless and poses no threat. When mold is present in an enclosed, inhabited area, such as a home, everything changes.

### Types of Mold

Mold is divided into three types:

**Allergenic Molds** do not usually produce any life-threatening issues, and will normally be a threat mainly to those who already suffer from some form of allergies or asthma. The physical responses are relatively mild, usually scratchy throats, eye and nasal irritations, and skin rashes.

*“The susceptibility to cancer is increased, and blood vessels in the skin may rupture.”*

**Pathogenic Molds** can produce some level of infection. People with depressed immune systems are usually the hardest hit, and high levels of exposure can result in hypersensitivity pneumonitis.

**Toxigenic Molds** are the ones everybody naturally fears. Commonly known as Black Mold or Toxic Mold, they can cause serious health effects for almost everyone. Toxic Molds can cause cancer, lung disease, and in rare, high exposure cases, even death.

## Health Hazards

Mold is typically harmless in its normal outdoor environment, but becomes a threat when it is allowed to grow unchecked in enclosed areas. The same spores that specialize in the breakdown of dead organic matter may now be inhaled in large amounts by humans and animals.

Depending on the level of the infection, people may experience slight problems such as allergic reactions, or nerve effects such as dizziness and disorientation. Toxic or Black Mold produces toxins that can not only suppress the immune system, but may also damage the intestines, skin, or lungs. The susceptibility to cancer is increased, and blood vessels in the skin may rupture.

Exposure to toxic mold has also been responsible for cases of nausea, diarrhea, headaches, tremors, kidney problems, and infertility.

## Mold Remediation

Never underestimate the destructive power of mold. Homes, businesses, and even entire city blocks have been condemned and torn down for no other reason than massive mold infestations.

Some people feel the need to pay to have their homes tested for mold. This is usually an expensive, but unnecessary expense. Mold is readily apparent as a fuzzy, greenish black growth on walls or pipes, and is accompanied by a musty, distinctive odor. If you suspect that you have mold, in all likelihood you do.

If you find mold, avoid direct contact with skin. Utilize eye wear. To prevent inhalation of mold spores, use a filtration mask, or better yet, a respirator.

***“It is far better to let the professionals handle it and not risk the lives of you and your family.”***



Some homeowners feel that if they bleach the affected area, that their mold problem will be over. Not necessarily. You not only have to kill the mold, but you also have to eliminate the conditions that made it possible for the mold to grow in the first place.

The first step in mold remediation is to find the source of the moisture and eradicate it. Make sure there is ample sunlight and ventilation in the affected area.

If the infestation is large, covering an area of more than a couple of feet in circumference, don't risk your health. Call in a mold remediation professional. Most IICRC certified companies will offer mold removal and remediation as part of their services. It is far better to let the professionals handle it and not risk the lives of you and your family.

## **Will My Insurance Cover It?**

Yes. No. Maybe. The single most confusing element related to water damage is what is and is not covered. Find out what you have, or don't have, and learn what you need when it comes to water damage and your insurance.

## **Homeowners Policies**

Water damage is probably the single most common reason that people make claims on their homeowner's policies. Unfortunately, it is only then that they actually discover what is and is not covered.

Flooding is not usually covered under insurance, and if water damage can be in any way traced back to negligence on the part of the homeowner, it will not be covered. Sudden and unforeseen problems are usually covered.

You need to take time and sit down with your insurance provider and determine the extent of your coverage. Making too many insurance claims for situations that are not covered can come back to haunt you when you try to shop for different insurance in the future.

## Covered By Insurance

- Sudden, accidental damage that causes water damage
- Burst Pipes

## Not Covered

- Flooding (Can be obtained through NFIP)
- Foundation Seepage
- Improper Maintenance
- Anything Considered to be Homeowner Neglect

## Horror Stories

A nearby lake or river overflows its banks and trashes your home. Are you covered? No, flooding is not covered by your homeowner's insurance, although flood coverage can be obtained if your community participates in the National Flood Insurance Program (NFIP).

Water seeps into your basement and damages the foundation and the interior? Are you covered? No, because seepage is considered a maintenance problem, and is thus filed under negligence on the part of the homeowner.

Your washing machine or dishwasher malfunctions, flooding the basement. Are you covered? It depends. Was the accident the result of improper maintenance of the washer, or was it the cause of sudden, accidental damage to the unit?

The temperature drops to below freezing, and your water pipes freeze and burst. Are you covered? Yes, you are covered for damage from burst pipes, but not if it is established that you left the house unattended and without heat. If so, you would be denied your claim because you didn't do everything you could to prevent the problem from occurring.

Obviously, the world of water damage insurance is a strange and unpredictable one. Again, take time to talk to your homeowner's policy provider and develop a clear understanding of how your policy works when it comes to water damage.

## What to Look For in a Water Damage Restoration Company

Don't let a bad situation become worse just because you made the wrong decision. Know what to look for in a water damage restoration provider, and learn what you should avoid. Hiring the company to restore your home after a flood is one of the biggest decisions you will make. Make it a good one.

***“As of right now,  
there are no  
Federal  
regulations  
governing who  
can and cannot do  
this sort of work.”***



## **The Dangers of Choosing the Wrong Company**

In the event of major water damage to the home, most people correctly look for a professional water damage company to do the work. The good news is that there are numerous listings in every city from companies advertising water damage restoration. The bad news is that not all water restoration companies are created equal, and you need to choose wisely when it comes to who will be responsible for the restoration of your home.

The fact is that not everyone who advertises water damage restoration is qualified to do this sort of work. In some cases, you may call and not talk to an actual provider at all, but rather a “company” that turns out to be two guys in an office who secure the job, take your money, and then subcontract the work out to the lowest bidder. The person who gets the assignments may very well be someone with little or no disaster relief experience. Is this really the sort of process you want when selecting someone to work on your home?

As of right now, there are no Federal regulations governing who can and cannot do this sort of work. The end result is that anyone can throw a mop and a shop-vac in the back of their Camaro and announce that they are in the water damage restoration business. Choosing the wrong company can have dire results:

- 1) In all likelihood it will not solve your water damage problems.
- 2) The damage to your home can actually be made worse as a result
- 3) You repair costs could easily double or even triple before you finally are able to find a qualified company to work on your home.



*“The ideal company should be available 24 hours a day, seven days a week.”*

## What to Look For In a Company

When it comes to choosing a qualified water damage restoration company, there are four basic tenets to look for. Of course there are more qualifications, but the big ones are:

- **Availability**

The ideal company should be available 24 hours a day, seven days a week. They will answer their own phones and be able to have a technician out to your home or business within an hour or so, even if that hour is at 2AM on a Sunday. Water damage does not keep regular office hours, so why would you want to choose a water restoration provider that does?

- **Trained Personnel**

The ideal company will have a complete staff of trained professionals, proficient on all the latest water damage restoration equipment and procedures. They will be able to do the work and communicate effectively with your insurance provider or claims adjuster to insure prompt, courteous service and timely completion of the work required.

- **Services Offered**

The ideal company will offer a complete range of services designed to return your home to its pre-loss condition. This will include water extraction and drying, carpet cleaning and mold remediation, as well as any structural repair or restoration that may be required. Any subcontracted work will be performed according to strict industry standards

- **Industry Certification**

Make sure the company you choose has been certified by an industry leader, such as the Institute For Inspection, Cleaning, and Restoration Certification (IICRC) or the Restoration Industry Association (RIA).



## The IICRC and RIA

The Institute for Inspection, Cleaning, and Restoration Certification (IICRC) was founded in 1972 to serve as an independent, non-profit, certification body, establishing and promoting high standards, ethics, accepted procedures, as well as accountability for companies who wish to legitimately perform this sort of work. It currently has 140 approved instructors, providing training and certification in every area of water damage restoration.

Certification is obtained through successful completion of a class in which the curriculum follows industry standards as they apply to that category. There is also a standardized final exam, as well as Continuing Education Credits required in order to maintain certification.

The Restoration Industry Association (RIA) is the older of the two entities, representing more than 20,000 cleaning and restoration professionals from over 1200 different firms. The RIA's goal is to provide credibility, education, and business improvement events designed to maximize industry exposure and advance knowledge in the cleaning and restoration industry.

Of course no certification is a guarantee of competent work, but it does guarantee that the company you have chosen has invested time, effort, and finances into the goal of having their personnel highly trained and properly equipped to work on your home.