TALKING CIRCLE

A Snapshot in Safety and Risk

TRIBAL FIRST®

Staying One Step Ahead of Water Intrusion

Water and mold damages costs 2.5 billion annually in the United States for both commercial and residential properties. Damage to structures, business interruption, and lingering environmental concerns, like mold growth and water damage, pose a serious economic threat to property owners and occupants.

In addition to any environmental issues that properties may face, building age, design, construction, and maintenance procedures all may increase the risk of damage from water intrusion. Regardless of the point of intrusion, lingering water and ambient moisture create conducive environments for the growth of mold and mildew while damaging property.

Recognizing the risk factors that are present at properties and designing and employing an effective Water Intrusion Response Plan (WIRP) are critical steps that can help minimize water damage and its ensuing costs.

Signs of Water Intrusion

Water intrusion and damage may be immediately apparent in the form of pooling water, but property owners and managers should be aware of other signs that may indicate a greater problem.

Musty or stale smells may indicate the presence of mold growth in hidden areas or pooling water in undetected locations.
Mold growth may be discernible on ceilings, floors, and/or interior/exterior walls.
Bubbling paint on ceilings and walls may indicate hidden areas of pooling water or undetected leaks.
Pooling water or leaks on or beneath flooring may cause wooden floors to buckle. Tile floors may exhibit signs of popping and cracking.
Stains on ceiling tiles may indicate the presence of roof leaks or condensation build-up on interior pipes and ductwork.

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Types of Water Intrusion

Roof Leaks

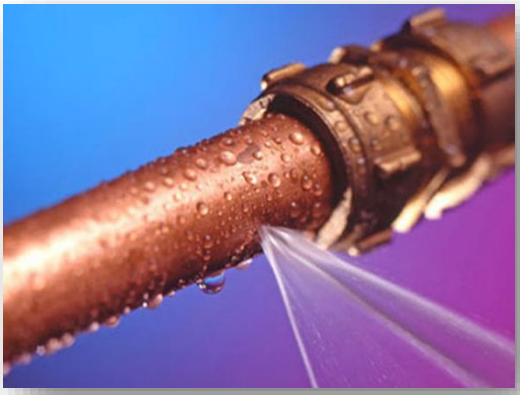
Roofs act like a large water collector. Heavy storms, age, lack of maintenance, and/or poor installation may all contribute to the risks of water damage from leaking roofs.

Make sure you are looking for these key areas when inspecting:

- Cracks in surfaces (exterior walls, roof surfaces)
- Depressed areas where water pools on flat roof surfaces
- Junctions between roof flooring and parapet walls
- Improper slope of the roof
- Roof-mounted water tanks and HVAC equipment
- Clogged drains
- Damage to flashing material

To help slow normal age-related deterioration and make minor repairs, implement quarterly roof inspections. Also, inspect the roof following any major storm or construction activity that might have caused damage.

Pipe Breaks



Breaks in water lines and pipes may be immediately apparent in some cases, but in other cases, signs of leaks may not appear until costly damage has already occurred. Interior walls, insulation, ceiling tiles, and surfaces all may be exposed to damage from interior line breaks.

Leaks in landscaping pipes may contribute to the undermining of foundations. Locating and repairing breaks in water lines and pipes should be a priority of any Water Intrusion Plan.

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Potential signs of water line and pipe breaks may include:

- Puddles of water under sinks or on flooring
- Puddles with no apparent source in an otherwise dry yard may be indications of broken water lines. Unexplained wet spots on sidewalks may similarly indicate broken lines.
- Hissing, whistling, or bubbling sounds
- Low water pressure
- Water damage on ceilings and walls
- Unexplained mold & mildew presence
- Discolored water
- Unexplained spikes in water usage and water bills

Sewer Back-Ups

Sewer back-ups can occur not only from clogs or obstructions in drain and sewer lines but also in cases of extreme weather and heavy rain. A large surge of water into an aged or inadequate system can cause sewage backups into properties. *Common causes and contributors to increased risk of sewage back-ups may include:*

- Clogged drainpipes or sewer lines
- Roots and shoots in the sewer lines
- Damaged or excessive age of sewer lines
- Overloading of sewer lines (gutters, sump pumps, or other drainage connected to sewer pipes)
- Blocked municipal sewer lines
- Malfunctioning septic systems

Here's how to stay ahead of these costly and disruptive events:

1. Implement schedules for planned inspections ensuring sewer lines are clear of tree roots
2. Consider lining or replacing old pipes

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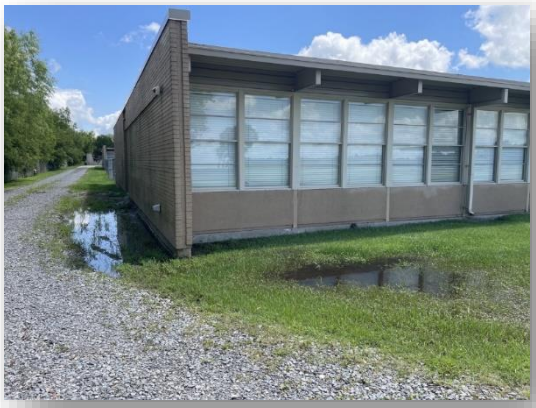
3. Install a sewer backup valve

4. Avoid planting trees or bushes near sewer lines or laterals

Overland Flooding and Standing Water



Water ingress from both rainwater and groundwater poses serious threats to property in every geography.

Standing and pooling water may threaten foundations, basements, fences, landscaping, and building interiors.

Note that saltwater and freshwater can damage buildings and property in different manners so Water Intrusion Response Plans must consider those differences.

Drainage and surface grading issues should also be evaluated as a regular part of any Water Intrusion Response Plan.

Water Intrusion Response Plan (WIRP)

Response Systems

Water Intrusion Response Plans enable property owners and managers to aid with prevention, recognition and management of moisture control and mold growth. With clearly established and defined roles and responsibilities, the potential for water and mold damage may be reduced. Key elements your plan should address include:

- Define prevention strategies to minimize water intrusion including scheduled, documented inspections and timelines for prompt repairs
- Identify shut-off valves and establish procedures to close them when needed
- Establish formal and documented training for all security, facilities, and property management staff at regular intervals
- Clearly establish and define clean-up and/or remediation procedures for water damage
- Establish parameters defining the size/scope of the job, ensuring a qualified water damage restoration specialist is identified
- Develop alternative security measures for the clean-up phase
- Provide procedures for reporting all incidents to management, tenants, and employees
- Assemble emergency supply “spill control kits” equipped with materials to mitigate damage from escaped liquids in key areas of a facility

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Developing a WIRP helps to ensure that properties have adequate resources on hand to respond to water intrusion and interior flooding.

Prevention Strategies

Preventative maintenance is a key element of effective Water Intrusion Response Plans. By taking preventive steps property managers and owners can mitigate or even prevent significant damage and operations interruptions.

1. Have a Water Intrusion Response Plan (WIRP) and ensure that key personnel are properly trained
2. Inspect and clean-out roof drains and gutters regularly
3. Maintain proper sealants on roof flashings and penetrations
4. Inspect and ensure that weep holes are working properly as designed
5. Inspect and ensure drainage and grading around buildings and ensure water flows away from structures
6. Inspect plumbing systems for signs of damage
7. Look for signs of water staining and quickly investigate the cause
8. Inspect and verify HVAC equipment is draining properly
9. Employ technology like thermal imaging, moisture meters in sensitive or hidden areas, and leak detection and/or automatic shutdown devices in susceptible equipment rooms

To learn more, Tribal First Risk Control encourages clients to watch this recorded webinar: Water and Its Damaging Effects on Property, presented on February 8, 2023. For more information or resources, please call (888) 737-4752, or email us at: riskcontrol@tribalfirst.com.

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