

Avoiding common water damage claims



Water or liquid damage is a leading cause of commercial property loss from a frequency/severity standpoint.* Leakages can create problems for property owners and managers at any time of year and during any point in a facility's life cycle. What often starts out as a small, undetected leak can quickly spread down through a building, travelling the route of least resistance and at a great distance from its original source, making detection extremely difficult.



Water damages incur billions of dollars of structural, operational, reputational and financial losses each year for commercial property owners. For example:

- A corroded pipe on a hot water tank relief valve went undetected in an office for an entire weekend. The damage extended to nine floors and resulted in losses of \$600,000.
- During a high-rise renovation, an abandoned water line ended up slowly leaking for an extended amount of time. Unbeknownst to the contractor, pressure began building up in the pipe, causing the water column to rise as high as four levels before finally breaking through the plaster. Losses mounted to more than \$500,000.
- A window left open in a vacated tenant space caused a pipe to freeze just inside the exterior wall. Coupled with the heat shut-off during the vacancy, the pipe burst and water leaked down four floors. This inspection oversight resulted in a \$100,000 loss.

Sources of water damage

Water entering a building generally comes from one of three sources, each with its own specific type of exposures:

1. Rain/surface water

- The roof on a building acts as a large water collector, and inferior designs of valleys, gullies and downpipes can result in leaks.
- Poor maintenance of roof rainwater services can lead to blockages and overflows, which can often escape back into the building.
- Severe storms and flooding from seasonal weather patterns can test even the most well-designed and well-maintained roof and building.

2. Grey/foul water

- Today's high-tech residential and commercial appliances (washing machines, refrigerators with ice machines, coffee machines, water coolers, etc.) require more sophisticated plumbing connections and, if installed wrong, can cause leaks.

* Zurich claims data

- Grey/foul waters tend to present intermittent leaks, which can slowly build up over time, as these types of appliances are not in constant use.
- Sprinkler piping and pump sets operate at high pressures, so any break in a line can give rise to rapid loss of large volumes of water.
- Feed water installations off municipal mains are often pumped, requiring proper operation and maintenance.
- The stability of water supply is an issue, as any loss of water supply is likely to lead to faucets accidentally left in the open position.

3. Facility systems/services water

- Plant rooms, boiler rooms and HVAC installations bring additional large volumes of water into a building, so any leak in these systems can result in extensive water flow throughout multiple floors, especially if these systems are located on the top floor or roof.
- Unoccupied properties are prone to freezing and subsequent burst pipes leading to large-scale water damage.
- The water supplies in some areas contain certain minerals, which can increase the corrosion rate of the water.



If your property fits one or more of these descriptions, you could be at a higher risk for water-related damages:

- 20+ years old
- High-rise with multiple tenants or units
- Use of newer construction materials
- Exposure to seasonal extremes or geographic-based events
- Deferred maintenance of structure and systems

Determining your vulnerability to water damage

Based on the experience of Zurich's risk engineers, several factors make a property more vulnerable to water-related losses.

First is the age of the structure. Typically, buildings that are 20 years of age or older are likely to have a higher risk profile. At that point in a building's lifecycle, significant wear and tear usually has occurred on exterior envelope and interior infrastructure. Piping and other systems in older facilities are more prone to failure.

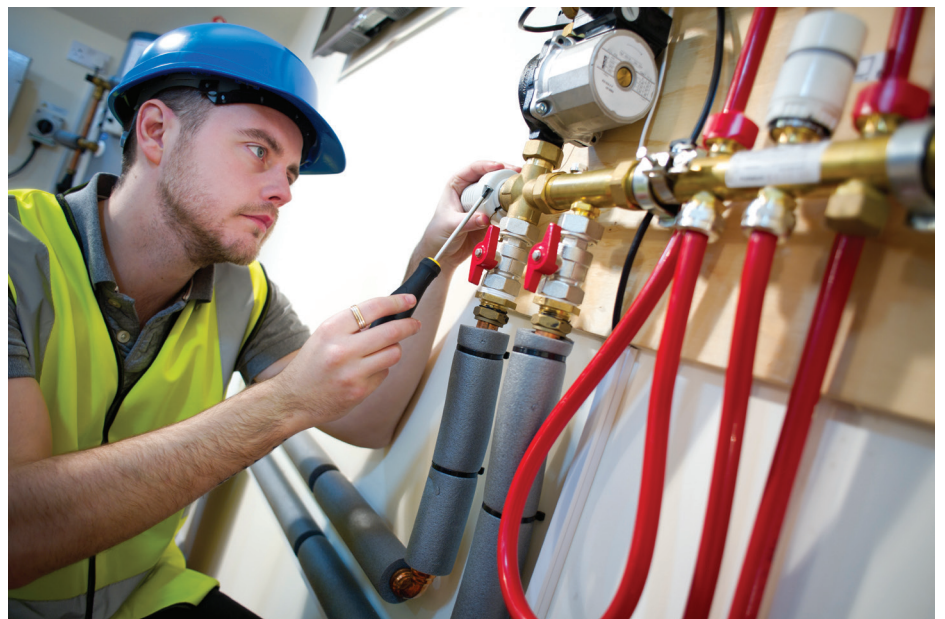
High-rise apartment buildings or hotels also tend to have more water damage exposures. Individual apartments or units can have their own combined pressurized hot water and heating systems, and a failure in just one can lead to a large escape of water. More high-tech installations such as steam showers, jacuzzi spas, soaking tubs and built-in water coolers can contribute to the potential for water leaks.

Another factor that raises the potential for significant water damage is the use of new construction materials other than traditional concrete and steel.

More structures are being constructed using materials like concrete forms, modular assemblies and engineered timber. Some of these newer materials are not always installed to the highest standards that have evolved over time with concrete and steel installations, or have the cladding necessary to protect from water seepages.

If your property is located in an area of the country where intense seasonal storms like hurricanes occur, or where natural geographic events such as earthquakes occur, it goes without saying that there is a higher potential for water leaks and infrastructure failure such as pipe breaks.

Last, but not least, any building where regular maintenance of the roof, windows, plumbing and HVAC is being deferred faces the potential loss of structural integrity. Deferred maintenance can lead to serious – and potentially catastrophic – water damages.



Benefits of a water damage mitigation program

Water damages can affect many physical, operational and financial aspects of your property operations. Beyond the obvious damages to the building's structure and electrical/HVAC systems, if you have tenants, a water-related incident can negatively affect their operations as well.

If your tenants experience business disruptions, you may be asked to offer rent reductions or waivers. Managing the remediation process itself can be time-consuming for your building staff. In the worst case, conflicts can arise that lead to expensive lawsuits and can put your reputation as a landlord at risk.

Property owners and managers can reduce the possibility of extensive losses through a comprehensive water damage mitigation program. The program should be developed based on detailed checklists that are specific to your facility. This detailed analysis gives your organization's risk managers, safety managers, building engineers and other professionals more control over these potentially paralyzing situations. A typical checklist assesses procedures and practices by asking questions such as:

- Are small leaks promptly repaired?
- Is the cause of any leak analyzed to determine if it was an isolated occurrence or a symptom of a system-wide problem?
- Are housekeeping personnel instructed to immediately notify maintenance when any type of dripping, leakage or clogged drain is found?

- Is there close monitoring of the work of outside contractors and vendors that may affect piping systems (sprinklers, water, etc.)?
- Are there any liquid storage tanks or vessels (hot water, condensate, boilers, fuel oil, etc.) inside the building, mechanical penthouse or on the roof?
- Are pipe diagrams or prints up to date and showing the location of valves for all liquid carrying systems?
- Are shut-off valves "exercised" (closed and reopened, lubricated as needed) at least annually to verify they can be quickly closed during an emergency?
- Is someone available on all shifts and trained to respond immediately to any leak?
- Is someone available 24/7 with authorization to call and bring in professional cleanup and restoration companies?

This is just a short list of issues to be analyzed when developing a comprehensive water damage mitigation program. As part of pre-loss discussions with your insurance carrier, a thorough and specific checklist assessment for your facility should be developed for major areas of concern including:

Critical equipment check

Even a small amount of water or other liquid falling on some equipment may result in the total shut down of that equipment. It's critical to identify sources of water or other liquid immediately above valuable equipment areas containing critical and expensive machines and other electronic equipment. Measures to help reduce or protect against possible leakage should then be taken based on this assessment.

Roof inspection

Close inspection of the roof, flashing, drains, downspouts and roof-mounted equipment such as antennas or satellite dishes can help reduce damages, especially for roofs that are exposed to severe seasonal storms and hurricanes. A roof inspection should be performed at least twice a year and right after major rains and windstorms. If a problem is identified, repairs should be scheduled promptly.

Maintenance schedule

Creating a systematic maintenance schedule and having a written plan for maintenance updates of the building, equipment and systems is key to helping avoid excessive wear and tear that can cause water damages.

New construction/ renovation process

Construction and renovation projects can leave a building and its tenants vulnerable to water damages. Identify new construction/landscaping on adjacent properties, especially those being conducted at slightly higher elevations. Storm water runoff can be a major problem when natural water diverting means, such as grass, are temporarily removed during a project. Debris from construction projects and landscaping can also clog storm drains in the area during exceptionally heavy rain events.

Loss scenario: Wear and tear meets human error

A sprinkler fitting separated between the fourth and fifth floors of a 30-floor hotel, causing an instant leak and triggering the start of the electric fire pump and waterflow alarm. Unfortunately, both went unnoticed by onsite management.

Two building engineers eventually discovered water pouring down the stairwell. By this time, the water had flowed into ceiling tiles, carpeting, drywall and vinyl wallpaper on all the floors below, and onto two 480-volt circuit breakers. The elevator pits were left with three feet of standing water, as well as the escalator pits. On the first floor, the guest business center and management offices also suffered from water damage.

In the end, losses came close to \$1.5 million. While it may have been difficult to identify the wear and tear on the sprinkler fitting, the management's oversight of the pump start-up and waterflow alarm certainly extended the amount of time the water had to do its damage.

Is your plan weather-ready?

Water damage can occur at any time of the year, but there are key seasonal periods such as the spring tornado/rainy season and fall hurricane period when the chances increase. These two seasons are good times for scheduled maintenance projects that were identified as part of your water damage mitigation program. Talk with your insurance carrier or loss control specialist to make sure your plan can help repel any weather coming your way.

Emergency response plan

When leakage does occur, immediate and proper action is vital to help reduce further damage and facilitate a faster return to normal operations. An emergency response plan will help minimize the reaction time to an event, which helps limit the water damage from spreading to a wider area. This written plan should include details on what to do in the event of a leak or liquid damage, a repair vendor phone list and the designation of one person in authority to oversee the process. The plan should be reviewed at least once a year.

When a comprehensive and specific plan is created for each of your properties, the results can extend beyond just mitigating financial losses to other important business benefits that can lead to increased retention and attraction of tenants, more attractive facility appearance and better reputation in the marketplace, and potentially lower insurance premium costs.



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