# Escape of Water: A residents guide

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# The scale of the problem

Escape of water continued to be a significant issue for both residential and commercial buildings in 2022, with a total of £987 million worth of claims made across the year, a 15% increase over 2021. This amounts to an average of around £2.7 million worth of escape of water losses every single day, not accounting for those where damage costs amounted to less than excess (please check the policy excess as damage can fall under this amount), or the additional costs that may have come from loss of rent, business disruption and potentially liability costs for a property owner.

As an issue, escape of water is significant both in terms of regularity of claims and the severity of them - which means that they happen often and cost a lot to repair when they do. The cost of repair is something that has risen in the past few years, largely due to the cost of living crisis which has seen an increase in the cost of labour and parts, but also due to the increased time needed for drying out where modern methods of construction materials have been used.

**Why should you act?**

Escape of water can occur in various ways, for example a sudden burst pipe or joint can result in water flow of up to 60 litres per minute, damaging everything in its path in a similar disruptive manner to flooding.

A minor leak can remain undiscovered for several months if concealed, resulting in unrepairable damage to a building's structure, fixtures and fittings. In addition, any such event can have significant consquences that don't have a monetary value, such as losing sentimental possessions, having to temporarily move out of your property, stress, anxiety and the danger of any incident causing damage to neighbours.

This guide will highlight the common causes of a leak, preventative measures to mitigate damage and help formulating an incident response plan should an incident occur.

## A message from Colin Prince

Underwriting Manager, UK Property

"The frequency and cost of water damage losses is nothing new and has been a challenge for many years across all areas of property insurance. This unfortunately is especially true within the residential sector.

Unfortunately recent inflationary impacts, more frequent and severe cold spells, shortage of tradespeople and the use of less resilient building materials have all contributed to a jump in both frequency and the severity of losses at a time when the cost of living increases are causing hardships for many.

Increasing excesses and premiums may provide the funds for insurers to meet these costs, however all that such action achieves is to transfer part of the financial burden to the owners and occupiers of the premises and this is something that we are keen to minimise.

Far better is to try and reduce the frequency and scale of events and this document has been prepared to look at actions that can be taken to do that. Implementing some of the recommendations within this document will, we believe, help to prevent losses or to minimise them once they happen, not only avoiding or minimising the financial impacts, but also the inconvenience and distress caused to the occupiers."

# The scale of the problem

## Myth Busting

### Myth 1: "It's only a winter issue"

Bad winters may cause peaks (such as Q4 2022 which saw £386 million of claims) but the underlying volume of escape of water claims is steady. The average cost is increasing and the number of potential causes is high.

### Myth 2: "It's not a source of major loss for insurers"

Escape of water has the largest share of claims when it comes to building losses, at roughly a third of all incidents. Just because escape of water won't always be visible, or cause as much damage as a fire might, doesn't mean it isn't a significant issue for customers and insurers.

### Myth 3: "It's modern properties that are affected the most"

It's not just new property, it's all property. Whilst newer homes and home improvements may feature more bathrooms, fitted kitchens, heating and other items, the vast majority of homes in the UK were built before 1980. The large range of potential causes of escape of water means that any property carries multiple risks.

New properties are, however, more susceptible to water damage and need extended drying.

# Common causes of escape of water in homes

**Leaks can vary from major bursts, which can result in flows of up to 60 litres of water per minute, to minor leaks, which may remain undiscovered for several months if the leak is in a concealed area not visible to the building resident, or where the building is unoccupied for long periods.**

Research has shown there are many causes of escape of water loss including cold weather, height of building, poor workmanship, faulty pipework and joints, modern lifestyles, lack of maintenance and even fraud. A study conducted by forensic investigators of 1,200 EoW claims over a 2-year period found that 67% of all incidents emanated from faulty pipe joints, all resulting from poor quality installation standards.

In this section, we're going to cover some common causes of escape of water in the home, how their impacts can differ, and what to look out for with seemingly simple day to day tasks.

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# Common causes of escape of water in homes

## Kitchen Appliances

Kitchen's are a common source of escape of water, with built in appliances such as washing machines and dishwashers large amounts of water. The pipes allowing water to flow can come loose, have joint failures or mechanical faults that can all lead towards a leak, so it's important to ensure these are fitted correctly and maintained where needed to mitigate the chances.

## Toilet Cisterns & Tanks

A similar issue to kitchen appliances pipes which can happen in toilets is joint failure, which can start out as a small leak and grow into something more substantial. In addition to this, other issues such as limescale can occur and cause damage, plus the chances of frost in a bathroom with an outer-facing wall.

## Bath, Shower & Sink Sealant

Whilst it may seem obvious if there is a leak in a bath, shower or sink, this may not always be the case. Hidden pipes again provide a risk, as well as the potential for blocked drains, which can cause water to back up and overflow. Regularly clearing out drains with appropriate unblocker is a good way to reduce these chances.

## Waste Pipes & Joints

Similarly to baths, showers, sinks and toilets, waste pipes can become blocked easily and the backup can cause overflowing or put undue pressure on the pipes. Joint failure can occur over time, especially if not fitted correctly, and the cold weather can also be a common cause of issues.

# Common causes of escape of water in homes

## Immersion Heaters & Boilers

Heaters and boilers are often hidden away, making these a significant cause of escape of water and ones that can take a while before they are spotted. Limescale, over-pressure, mechanical faults and joint failure are all risks when it comes to these, which means regular checks by an approved plumber are essential.

## Radiators

With the temperature of radiators changing frequently, and with them being out in the open and visible, the chances for damage are heightened. Corrosion over time is possible, as is joint failure if pipes aren't fitted correctly.

## Supply Pipes & Joints

Corrosion and erosion are possible with pipes and joints, especially as these are hidden away from plain sight. Water pressure and the potential for frost and changing weather conditions are also risks.

Soil stacks are prevalent in new builds and, given they are boxed away, can suffer severe damage before becoming visible.

# Common causes of escape of water in homes

## External Factors

### Weather

Whilst weather, more specifically rain and cold weather period, can cause flooding and frost both inside and outside of residential properties, it's main link to escape of water is how it exacerbates underlying problems. Whilst nothing can be done about the weather, ensuring pipework (lagged if possible, particularly if exposed), boilers and radiators are fit for use before extended periods of rain or frost can help reduce the risks.

### Construction

Whilst undergoing renovations, or construction of a new home, it's important to ensure there is a skilled workforce on site. Mixing newer methods of working with older buildings can be an issue, so whilst it might save some money to find cheaper labour, it might not be the right decision in the long term.

### Materials

Pipework failures can result in substantial losses, either through an individual case or multiple smaller ones. Using the right materials for piping is essential and should be well thought out ahead of any work being done.

### High rise living

Sometimes escape of water can damage more than just your property, and is a common risk in high rise living due to pressurised system. Leaks from your flat, particularly on higher floors can impact others on floors below, and more people could be impacted as a result.

# Common causes of escape of water in homes

## Case studies

### 1. Soil stack

**Scenario**

Loss occurred when foul water and material leaked from a pipe joint beneath the floating floor of an apartment kitchen, slowly releasing contaminated water into the voids within this and other apartments. This not only caused damage but put residents' health at risk.

**Cause**

Loss was caused by the faulty installation of pipework by sub-contractors. Firstly, the pipe was directly set in concrete at the slab penetrations, instead of including insulation sleeves as recommended in the architect's drawings. Then the expansion joints were not installed to accommodate the normal thermal expansion and contraction of the pipework. This caused stresses resulting in fatigue failure at the joint

**Cost**

Circa £1,000,000

### 2. Slow leak

**Scenario**

Loss occurred when bath water leaked through defective sealant to flow beneath the bath for several years, out of sight.

**Cause**

Although the sealant appeared in good condition, with no obvious signs of degradation, the weight of the full bath caused the bath to drop and open up a gap beneath the sealant, allowing excess bath water to flow beneath the bath. As there was no routine inspection behind the bath panel, the water damage went unnoticed until too late.

**Cost**

Circa £400,000

# How to prevent water damage in homes

**Whilst some element of risk will always remain with escape of water, there are a number of actions that can be taken to mitigate the risk of an incident occuring in the home.**

In this section, we're going to cover some of the do's and don'ts of mitigating escape of water damage, who you can contact to help, and things to remember ahead of holiday and winter seasons.

# How to prevent water damage in homes

## Do not:

- Ignore that dripping tap!
- Forget to isolate your water supply if you're going away for a long period of time
- Forget to ensure that pipes and tanks are insulated or heated to prevent them freezing
- Discard nappies, wet wipes or cotton buds down the toilet
- Discard cooking fat down the sink
- Stand on sanitaryware
- In cases of being a tenant, undertake bathroom or kitchen renovation without informing the landlord

## Do:

- Know where your stopcock is and how to turn it off, test it works twice a year
- Check for leaks in high-risk areas such as bathrooms, kitchen, boiler rooms etc. at least annually, ideally more regularly
- Check beneath the bath and shower basin, plus flexible hoses on appliances
- Check sealant and grout around shower trays, bathroom and kitchen fittings; ensuring they are maintained and in good condition
- Ensure you prevent excessive quantities of water from spilling onto bathroom floors from washing, bathing, or showering, where the floor is not designed for such purposes
- Contact the landlord (if renting) to alert of any water leaks, blockages or plumbing problems
- Contact the landlord (if renting) for plumbing repair or installation advice and assistance
- Use an approved plumber to fit pumbing and appliances, checking their insurance details
- Maintain all heating appliances in accordance with manufacturers guidance

# How to prevent water damage in homes

## Leak detection and suppression devices

Even where a suitable risk assessment has been undertaken and precautions put in place, EoW incidents will still happen. However, alongside improved water risk management planning, technological advances mean that leak detection and suppression devices are now available that can be fitted into new or existing buildings to significantly reduce the impact of a leak or burst pipe, should it occur.

Leak detection and suppression devices comprise of various components used together in several configurations. Device components include:

- Leak cable or point sensor – fitted in high risk areas to detect burst pipes or drips
- Ultrasonic sensor – fitted onto soil stack or drainage pipework to sense blockages
- Multi point sensor – can include heat, humidity and water sensors in a single unit
- Water flow monitor – fitted on or in the incoming mains supply pipe to measure flow rate, flow volume or water temperature
- Water shut-off valve – fitted in the incoming mains pipe to manually or automatically shut off the water supply following a leak or burst pipe
- Control Panel – Interface between the components
- Signalling & communication technology – signalling technology is used to send an alarm and system data to computers and mobile devices
- Power supply – leak devices are powered via a combination of mains and battery supply
- Smart platform – web-based applications allow remote control of valves and water consumption monitoring
- Humidity - the devices also measure humidity which can be an early indicator of hidden damage

Such devices are cheaper and simpler to install at new build stage, but also effective when installed in established buildings at high risk of water damage, or those suffering from significant and persistent EoW incidents.

Over recent years, Zurich has engaged with several device suppliers and manufactures, such as Geo: Waterlock, Aqualeak and Leaksafe, to learn more about the potential benefits of fitting such device at new build and retrofit stages. Several suppliers spoken to stated that for some properties, leak detection and suppression devices can potentially reduce the severity of claims by up to 80%.

Speak to Zurich before engaging a leak device company, we can discuss the pros and cons of your situation and help you make the right decision on a solution to your leaks.

# Responding after an incident

Ensure you have appropriate contents cover for your personal belongings as the Landlords buildings insurance is likely to be restricted to covering the building structure only including fixtures and fittings such as baths, basins and toilets.

**Older properties** can present an increased EoW risk, as plastic parts can become brittle, metal parts corrode and seals crack. This risk is exacerbated by combining older plumbing systems with modern appliances, as new appliances increase the pressure loads on older plumbing systems, leading to higher rates of wear, tear and failure. You should be extra vigilant by carrying out regular visual checks to uncover any unseen leaks.

**Tall properties** can present an increased EoW risk, as buildings over 3 stories are likely to need pressure boosted systems (pumps) to lift the water to upper floors. Pumped plumbing systems under constant pressure can be overly stressed, leading to higher pressure can be overly stressed, leading to higher rates of wear, tear, and failure. You should be extra vigilant by carrying out regular visual checks to uncover any unseen leaks.

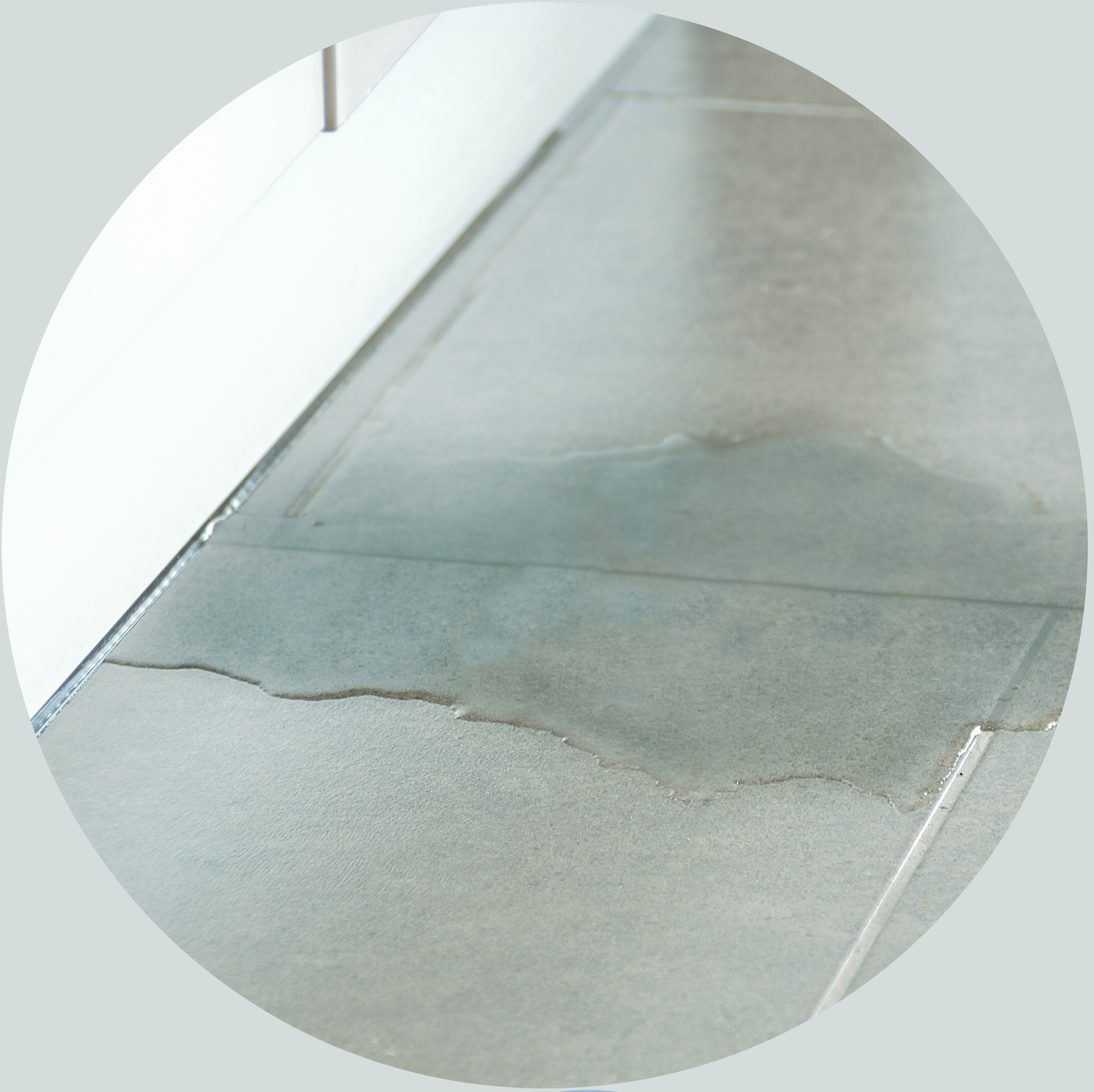
**Pipe joints** are the most common origin for EoW, therefore if you or a contractor install or connect joints of any type, its critical the manufacturers installation guidelines are adhered to.

**Tell-tale signs** you have a water leak include a loss of boiler pressure, the smell of mould, a damp patch appears or you have received a high-water bill.

**Smart water sensors and water shut off devices** are available that can spot a leak or the smallest change in your water consumption, alert you to an EoW and shut off water supply before it's too late. If you're at increased risk of an EoW, a leak device can not only save you a significant amount of money from a loss, but it could also be the difference between staying in the property or having to move out whilst repairations are done - something which can cause significant disruption to families.

**You should ensure you:**

- Know where the stopcock is
- Isolate the water supply as soon as possible
- Have emergency contact details to hand including:
  - a certified plumber
  - a landlord (if renting)
  - the building and contents insurer
- Take photos of the incident
- Preserve any damaged plumbing and contents
- Are easily contactable, in case a leak occurs in your home



# How can we help you?

**For further guidance on escape of water, below are some useful websites:**

- News and Insight: Escape of Water
- Escape of Water: The perils of plastic
- The Construction Insurance Risk Engineers Group (CIREG)
- Association of Plumbing and Heating Contractors
- Chartered Institute of Plumbing and Heating Engineering
- Geo: Waterlock
- Aqualeak Detection Ltd
- LeakSafe Solutions

**In the event of a claim:**

- Social housing tenants should speak with you council and/or housing provider
- For those renting privately, speak to your landlord
- For homeowners, speak with your broker or visit our home insurance claims page

**If you have any questions or if you would like to talk to one of our team, please contact us:**

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zurich.co.uk/home-insurance or zurich.co.uk/municipal

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