

Escape of Water – 10 Top Tips

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Escape of water events can cause disproportionate levels of damage. Whether from an undetected leak in a concealed area or a sudden event involving pressurised water, simple planning and training can help ensure escape of water emergency events, when they occur, are managed promptly and calmly, helping to minimise the resulting damage.

This Loss Prevention Standard provides a summary of the main risk concerns along with practical guidance to help assess and reduce the potential for, and consequences of, escape of water events.



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Introduction

Water leaks can cause significant damage to property, leading to costly repairs and potential health hazards. They can occur for a variety of reasons, including but not limited to:

Leaking Pipes. Water and sprinkler pipework can develop leaks due to faults, damage, corrosion, over-pressurisation, freezing.

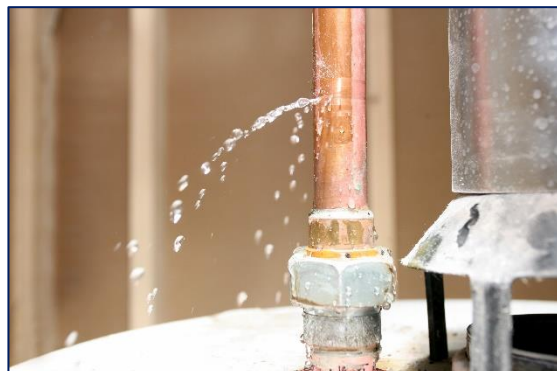
Faulty Fixtures and Appliances. Showers, baths, basins/sinks, toilets and cisterns can be damaged or develop faults and appliances such as washing machines and dishwashers can leak due to poor installation or excessive movement loosening connectors.

Heating and Cooling systems. Boiler equipment, filtration plant, water tanks, air conditioning systems etc., can all cause water damage if not properly maintained or as a result of faults.

The results of water leaks include damage to property, often very significant, as illustrated by an [escape of water incident in Suffolk](#) in December 2023; evacuation of occupants, as per a [previous water leak event at the aforementioned property](#) in July 2023; increased water costs and potential health risks from mould and mildew.

The risks associated with escape of water, and recommended risk management guidance are fully discussed in Aviva Loss Prevention Standard **Escape of Water and Other Fluids**. This document provides 10 Top Tips on helping to prevent, prepare for, and respond to emergency escape of water events, and thus helping reduce the potential for associated loss or damage.

Note: This document is focussed on Property loss prevention in relation to escape of water incidents. It is not intended to address Liability exposures. The presumption is that all regulatory requirements, Fire Risk Assessments, and compliance with requirements placed by the local authority having jurisdiction which would include licencing, building permissions, regulations, codes, or standards, have or will be met.



Managing the Risks

1. Risk Evaluation

Identifying all water services within the building and regularly assessing the associated risks is critical. Areas to consider include:

- Identifying and logging internal and relevant external water services, pipework, tanks, joints and connectors; manifolds; boilers; appliances such as washing machines and dishwashers; water coolers; fixtures and fittings e.g., toilets, cisterns, sinks, basins, showers, outside taps plumbed into internal systems etc.
- Reviewing the associated risks and hazards, these include but are not limited to:
 - ✓ Leaks.
 - ✓ Physical damage.
 - ✓ Age/lifespan concerns.
 - ✓ Lack of inspection and/or maintenance.
 - ✓ Availability of spare or replacement parts.
 - ✓ Previous issues.
 - ✓ Vulnerabilities e.g., valuable assets or critical functions in proximity or below.
- Assessing overall condition, checking for obvious signs of damage or faults, known industry component concerns, ability to exercise and test etc.
- Evaluating current inspection and maintenance arrangements.
- Extent and suitability of existing emergency response procedures.

- Suitability of protective measures e.g. lagging and trace heating, isolation and heating controls in winter etc.
- Extent and sufficiency of existing leak detection and automatic isolation systems.
- Standard of assessment reporting, record keeping/documentation and systems for implementing corrective actions within appropriate timescales.
- Review procedures to ensure continual improvement and identification of changes etc.

2. Protection

Prevention is the best cure and protecting vulnerable water services can reduce the risk of escape of water incidents.

- Ensure exposed pipework within unheated buildings, concealed areas such as lofts, basements, service risers etc., and outdoors are adequately protected against cold temperatures.
 - ✓ Trace heating and/or lagging should be installed for any exposed pipework.
- Ensure any copper pipes embedded in concrete are fitted with protected sleeves to prevent corrosion.
- Pre-winter checks should be planned, scheduled and undertaken prior to the onset of cold weather or winter.
- Ensure sprinkler pipes, valves and water storage tanks etc., are adequately protected against freezing.
 - ✓ Sprinkler contractors should be requested to inspect insulation and trace heating prior to the onset of winter and ensure the precautions remain adequate. Refer to the Aviva Loss Prevention Standard **Sprinkler Systems Winter Precautions** for further guidance.
- Installing a water isolation switch, which can shut off the water supplies either remotely or manually upon leaving the premises, should be considered.
- Consider the use of timers linked to solenoid valves to prevent water being held within systems outside of business hours and until needed.

3. Operational Controls

Provide clear guidance and information for occupants.

- Ensure the main incoming water mains stop valve, all internal stopcock/isolation valves and drain line valves are readily accessible.
- All occupiers of the building, maintenance workers and contractors should be made aware of their location, including any isolation valves.
 - ✓ Occupants should physically isolate relevant valves and systems as part of the training.
- Adequate heat (minimum temperature of 5°C) should be maintained during cold weather. Consider leaving loft hatches open to provide adequate ventilation.
- Ensure appropriate rules are in place prohibiting draining oils and grease into kitchen sinks, flushing of sanitary products etc.
- Prohibit the out of hours usage of appliances such as washing machines.
 - ✓ Consider installing a drip/spill tray under any appliances, particularly those location on upper floors.
- Adopt a closing down procedure to ensure taps are closed, cisterns are not faulty and overrunning, appliances are not running.
- Ensure the water services are isolated and drained for any buildings that become unoccupied.

4. Maintenance

Ensure all water/fluid services are adequately maintained.

- Appliances including boilers, heating, ventilation and air conditioning systems (HVAC), pumps, filters, water coolers etc., should be subject to formal servicing arrangements.
 - ✓ Ensure contractors are members of a recognised professional body e.g. the Chartered Institute of Plumbing and Heating Engineering (CIPHE) or the Chartered Institution of Building Services Engineers (CIBSE).

- Closely manage, inspect and approve works carried out by contractors to ensure these meet the required quality standards, and comply with local, national regulations, codes or standards, such as the Water Supply (Water Fittings) Regulations 1999 in the United Kingdom.
 - ✓ Refer to Aviva Loss Prevention Standard **Managing Contractors – Property** for further guidance.

5. Inspection and Checks

Self-inspection programmes can help identify hazards and risks, which if undetected could lead to loss or damage.

- Introduce formal monthly self-inspection programmes for water services and all associated systems.
 - ✓ Aim to identify damage, staining, swelling of ceiling and wall finishes, corrosion, limescale accumulation etc.
 - ✓ Self-inspections should extend to any monitoring and reporting systems.
- Ensure persons appointed to the self-inspection team are adequately trained and authorised to request remedial actions.
- Ensure remedial actions are undertaken promptly.
- Self-inspection reports should be routinely audited by senior persons to ensure actions are being completely sufficiently and within appropriate timescales.
- The use of thermal imaging cameras can help identify and trace damp/wet areas.
 - ✓ Refer Aviva Loss Prevention Standard **Thermographic Surveys** for further guidance.

Refer Aviva Loss Prevention Standard **Self-Inspections** for further guidance and a sample self-inspection checklist.

6. Install Leak Detection

Consider installing water flow detection, leak detection, and associated isolation valves.

- These can be used to isolate the supply in the event of prolonged flow being detected, on activation of water leak detection tape or sensors, or whenever the building is left unoccupied.
- Remote monitoring of the equipment can be provided and is strongly recommended.
- Leak detection should also be considered in, or in close proximity to, high-risk areas, such as electrical riser cupboards, IT rooms, areas with sensitive equipment and other business-critical locations.

7. Emergency planning

Planning for emergencies help remove uncertainty when an emergency event occurs. Ensure:

- Ensure sufficient responsible persons are appointed at the premises to respond to emergency escape of water events.
 - ✓ This may be maintenance workers, representatives of the occupants, managing agents , employees etc.
- Drawings of the water systems are readily available and accessible, detailing:
 - ✓ The Water, fluid, waste pipework, networks, and layout of the building.
 - ✓ Main incoming water mains stop valve and internal stop cock/isolation valves that supply water/fluid to various parts of the building.
 - ✓ Drain lines and drain line isolation valves.
- Occupants including tenants, managing agents, maintenance contractors and any contractors working on site are provided copies of such plans and guidance.
 - ✓ A list of reputable approved plumbers, heating engineers and electricians who can be called upon to carry out emergency repairs etc., should also be provided.

8. Emergency response

In the event of an emergency event, ensure:

- Water supplies to the building or part(s) of the building that are involved are isolated.
- Notify the person responsible for the building as soon as possible.
- Emergency contractors are contacted.
 - ✓ This duty should be the responsibility of nominated persons to avoid being overlooked.
- Relevant electrical supplies are isolated
- Heating and hot water systems are isolated where involved
- Drain systems that hold water, including any storage tanks, to safe locations
- Alert occupants of neighbouring areas/properties if they may be affected, especially those on floors below
- Use receptacles to contain water seeping through ceilings.
- Frozen pipes are defrosted slowly with hot water bottles or warm air blowers.
 - ✓ Do not use naked flames, such as blow torches.
- Doors and loft hatches should be left open to allow warm air to circulate to upper floors and within loft areas.
- Ensure photographs are taken of the incident location including the affected water services, damage, any missing protections and signage.
- If necessary, move any high-risk items that could be impacted to a safe and secure area.

9. Testing and Training

With protections and emergency plans in place you now need to ensure they will work if and when required.

- Ensure the main incoming water mains stop valve, all internal and external stopcock/isolation valves and drain line valves are regularly exercised to ensure they operate correctly.
 - ✓ Monthly intervals are recommended.
- Regularly test leak detection devices in accordance with manufacturers and/or installers instructions.
 - ✓ This should extend to any associated monitoring and reporting devices.
- Ensure occupants and responsible persons at the premises receive regular training/refresher training on the water services, isolation methods, emergency call out procedures etc.
 - ✓ At least six monthly training intervals are recommended.
 - ✓ New starters should receive training as part of induction training.
- Undertake at least annual mock emergency leak events to test the effectiveness of the emergency planning and response procedures.
 - ✓ Ensure a post event review is undertaken with key stakeholders to help identify areas for improvement.
 - ✓ Communicate any changes to procedures to occupants, key workers etc.

10. Signage

Ensure appropriate signage is displayed.

- Water supply shut off location cards and stopcock valve signage are displayed in proximity to any incoming water valve stations.
 - ✓ Aviva provide sample location cards and signage in the Aviva [Escape of Water Risk Management Guide](#).
- Display signage prohibiting the use of appliances outside of hours and flushing of sanitary products.
- Ensure the self-inspection programme is extended to include checks on signage.

Specialist Partner Solutions

Aviva Risk Management Solutions can offer access to a wide range of risk management products and services at preferential rates via our network of Specialist Partners.

For more information please visit:

Leak detection [Leaksafe](#)

Escape of Water Leak Prevention [Quensus](#)

Thermal Imaging Cameras [Pass](#)

[Aviva Risk Management Solutions – Specialist Partners](#)

Sources and Useful Links

- [BS EN 806 - Specifications for installations inside buildings conveying water for human consumption](#)
- [BS 8558 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages. Complementary guidance to BS EN 806](#)
- [Aviva Escape of Water Risk Management Guidance](#)

Additional Information

Relevant Loss Prevention Standards include:

- **Escape of Water and Other Fluids**
- **Escape of Water – Installation and Maintenance**
- **Escape of Water on Construction Sites**
- **Thermographic Surveys**
- **Managing Contractors**
- **Self-Inspections**

To find out more, please visit [Aviva Risk Management Solutions](#) or speak to one of our advisors.

Email us at riskadvice@aviva.com or call 0345 366 6666.*

*The cost of calls to 03 prefixed numbers are charged at national call rates (charges may vary dependent on your network provider) and are usually included in inclusive minute plans from landlines and mobiles. For our joint protection telephone calls may be recorded and/or monitored.

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