Bristol City Council Housing and Landlord Services

Water Safety and Legionella Policy

Version 1

Approved by: Housing Services Leadership Team

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Responsibility: Housing & Landlord Services

History of most recent policy changes			
Date	Page	Change	Origin of change (e.g. legislation)
November 2023	All	V1.2	n/a – New Policy

Contents

Planned Programmes and Response Repairs
Asset Management

Strategic Context

The Health & Safety Executive (HSE), Department of Health, British Standards, and other government bodies set the rules we must follow to manage risks from water in our homes—especially hot and drinking water. This policy, along with our water safety procedures, helps make sure our homes are safe from bacteria (like Legionella) and the risk of scalding.

Water safety is essential to protect the health and safety of our tenants, leaseholders, and staff. It's also a legal requirement under UK Health & Safety law. If we don't follow this policy or the law, it could lead to serious consequences—such as illness, injury, or even death. It could also damage property and result in legal action, fines, or even prison for individuals involved.

Most importantly, this policy exists to protect people's lives, health, and homes—and to make sure we meet our legal responsibilities.

See Appendix A for a full list of the laws, standards, and policies that apply.

Policy Statement

This policy works in conjunction with our water safety procedures. It is not a technical document but it explains our responsibilities and approach.

Bristol City Council is committed to keeping tenants, staff, and the public safe from risks linked to hot and cold water. This includes preventing:

- The growth of harmful bacteria like Legionella
- The risk of scalding from hot water
- The supply of unsafe drinking water

The policy exists to ensure compliance with all relevant domestic Water Safety legislation and regulations and to describe Bristol City Council's (BCC) control of Water Safety. It establishes that we will test and maintain for the risk from microbiological and scalding hazards, from the supply and use of water, including Legionella infection.

Aims and Objectives

This policy will establish that, in accordance with regulations, we will:

- Provide a safe, clean and maintained water supply and storage system
- Monitor, record and prevent the risks of Legionella
- Manage, clean, service, maintain and replace water supply systems & equipment
- Manage, clean, service, maintain and replace water storage installations
- Ensuring and identifying adequate flow-through of water systems
- Ensure all fixtures and fittings installed are of an approved standard
- Provide and record a testing and sampling regime of water systems & equipment
- Investigate, respond to and carry out corrective actions for identified risks
- Ensure water supply equipment maintain the correct temperature or chemical parameters
- Have oversight or review on the design or installation of new equipment or assets
- Report misuse of water equipment or violations of regulations appropriately
- Provide adequate training to staff where required

Roles and responsibilities and authority

Bristol City Council's political leadership structure is responsible for decision making and policy recommendations, accountability and the implementation of this policy. They are also responsible for strategic oversight on behalf of the Administration. The Corporate Leadership Board, Chief Executive and Executive Directors, including the Monitoring Officer – maintain oversight of the Council's risk register. This provides the "Golden Thread" and solid governance oversight for all risks facing the council. The CLB can then prioritise, re-direct and provide another layer for Member/Officer engagement at the highest levels.

Various staff responsible for activities relating to managing water safety have responsibilities for delivering this policy across Housing and Landlord Services.

Specific roles are set out in the standard operating procedures that support this policy.

The Director of Homes and Landlord Services: has overall responsibility for the operational delivery and development of this policy and ensuring that it is fully implemented.

Building Services and Compliance Manager: will implement policy decisions, be accountable for the spend of capital and revenue and ensure the council's priorities and regulatory requirements are met.

Mechanical, Electrical & Heating Manager: responsible for operational day to day oversight of all repairs and maintenance, and arranging and prioritising programmes of work to resolve existing and prevent future water safety issues. This responsibility includes ensuring all relevant staff are trained, that complaints and disrepairs are dealt with in accordance with BCC policies and there is strong performance management of surveyors, internal trade teams and external contractors completing the works.

Mechanical & Engineering (M&E) teams': responsibility to manage, audit and monitor the equipment and records relating to water safety, and carry out risk assessments. The M&E team will also manage the work carried out by contractors on behalf of BCC, who will be responsible for providing reporting records that will be monitored by M&E. The team will also review designs for new installations.

Estates Officers, Responsive Repairs Surveyors or Caretakers: have a duty to report any faults or repairs issues identified when attending our property for any reason.

Tenants: Our Tenancy Agreement sets out the responsibilities of both the council and our tenants, which includes the requirement to report any repairs that we need to make – for example to leaks from pipes, blocked drains or problems with the building.

Scope

This policy sets out our approach and responsibilities in dealing with waterborne hazards to all HRA owned social housing blocks (relevant buildings) or dwellings, including systems for communal areas and those that supply leasehold or shared owners.

BCC has no direct responsibility for managing water systems within commercial leasehold premises unless specified within the lease agreement. However, BCC is responsible for any communal water systems which may directly or indirectly supply commercial leasehold premises. As such, BCC will be responsible for the prevention of the growth of Legionella bacteria and the management of those common parts and sections of the water system.

We also have a responsibility to monitor the water safety of blocks that are owned by a private freeholder/s who have responsibility for the communal areas when BCC has tenant/s residing within that block. It will not apply to those properties that are leased by external housing providers, where we have no maintenance liability.

This policy describes what we will do to prevent waterborne hazards, and when we will do them. The Water Safety Plan provides the detail on how we prevent waterborne hazards, the works we carry out and the related processes.

This policy will not provide technical detail on the prevention of waterborne hazards. Waterborne hazards include, for example - microbiological pathogens, risk of scalding, poor drinking water quality.

BCC will not carry out any Legionella risk assessments on individual General Needs properties that are supplied by mains-fed combi boilers. These are assumed to be low risk but will be assessed at the void stage for any potential Legionella risks or component replacements e.g. showers, dead-legs, Thermostatic Mixing Valves, etc

What are the risks?

Mainly **Legionella bacteria**, but also other harmful bacteria can commonly be found in all water sources, particularly in temperatures between 20 – 45 degrees. To prevent the spread of bacteria, water in any form of containment must be clean of sediment, sludge, scale or any other material, and stored below 20 degrees Celsius or above 45 degrees Celsius.

The potential harm from **scalding** depends on the water temperature, contact time, susceptibility of the individual, and volume of water and how it is delivered. One of the measures for controlling the growth of Legionella bacteria is to raise hot water temperatures to a level that significantly increases the risks of scalding (in excess of 45 degrees).

Stagnation of water occurs where water ceases to flow or 'sits' in systems for a period of time and becomes susceptible to growth of bacteria. The risk of this will increase in low use locations or where a property is not in use or unoccupied for a short period, such as voids.

The Policy

Our Water Systems
BCC will ensure that water systems and buildings in which water systems are installed are able to maintain safe water throughout the whole life of the system. The measures set out in this policy are sufficient to control and manage risks associated with Legionella or other similar waterborne bacteria.

Water systems are designed, installed and commissioned in accordance with the requirements of current legislation and guidance as determined in the appropriate British Standards, Water Regulations and Building Regulations as a minimum, thus enabling water systems to perform and be operated or maintained in accordance with The Approved Code of Practice (ACOP) L8 (fourth edition, 2013) for the control of Legionella bacteria in water systems, and the Health & Safety Guidance 274 (HSG274) Part 2: The control of legionella in hot and cold water systems.

We will:

- Maintain and monitor the effectiveness of our **Water Safety Procedures**.
- Carry out risk assessments to identify hazards or the potential for hazards
- Take steps to prevent the growth of Legionella bacteria, such as:
    - Maintain adequate temperatures outside of 20 to 50 degrees Celsius
    - Ensuring all areas of the water system have an adequate through flow of water
- Have a regime of treatment and control programmes
- Ensure that systems are regularly monitored, inspected, maintained, flushed, cleaned and disinfected
- Take steps to prevent the potential for scalding

Risk Assessments
BCC will use Risk Assessments in a range of scenarios to monitor and evaluate the potential for risk, danger or non-compliance with legislation, and identify remedial actions. They will be formally reviewed either periodically or when a particular criteria or trigger has been met, to ensure they remain up to date. There is:

- Legionella Risk Assessment
- Risk Assessment for Contraventions of the Water Regulations
- Design Risk Assessment

Legionella Risk Assessment
The risks from legionella shall be formally assessed in accordance with the requirements of the HSE's approved code of practice (ACOP L8). Risk assessments shall be undertaken to the standards outlined in BS8580:2019 and the Legionella Control Association's service standard for legionella risk assessment.

Assessing the risks from Contraventions of the Water Regulations
When carrying out a Legionella Risk Assessment, risks from back flow contamination and other contraventions of the Water Regulations will also be assessed.

Design Risk Assessment
All new water system designs are subjected to a Design Risk Assessment before construction commences to review performance criteria such as volume, flow, temperatures and other relevant controls, carried out by appropriately qualified staff. And will also be subject to witness testing and successful commissioning and documentation provided, before the project is handed over.

Controlling the Water Safety risks
Legionella
To minimise levels of bacteria in water, BCC will use the following preventative measures:

- Cold water shall be stored and distributed to all services at no greater than 20 degrees Celsius, after 2 minutes of operation at the outlet
- Cold water temperature shall not increase more than 2 degrees Celsius above that of the supply to the building
- Hot water, where stored in vessels greater than 15 litres, shall be no less than 60 degrees Celsius

- Hot water stored in vessels up to 15 litres shall be between 50 and 60 degrees Celsius
- Hot water shall be distributed to all services in at no less than 50 degrees Celsius after 1 minute of operation at the outlet
- Where hot water is circulated, the water returning to the source heater shall be no less than 50 degrees Celsius
- De-stratification pumps should be fitted to calorifiers to maintain circulation and consistent temperatures stated above

In addition to these temperature control measures - water systems will be designed, installed, used and maintained to avoid the deterioration of water quality, including:

- Avoiding the use of materials that would harbour or provide nutrients for bacteria
- Maintain systems in a clean and sound condition
- Clear labelling of pipework
- Avoiding over design, storage and stagnation
- Avoiding the creation of aerosols and breathable water droplets.

Risk of Scalding with Hot Water
BCC will protect tenants, staff and visitors to our residential buildings (as set out in Section 3 – Scope) from risks of scalding. Methods of controlling legionella in hot water include raising water temperatures to ensure that the temperature of water at the outlets is at least 50 Degrees Celsius. Due to the temperatures required, in relevant buildings the risks from scalding will be formally assessed and reviewed on a regular basis. To prevent scalding, M&E will use preventative measures that include:

- Bi-Annual Risk Assessments
- Engineering Controls where appropriate (TMV's)
- Ensuring staff responsible are adequately trained and competent

Provision of Safe Drinking Water
BCC will ensure drinking water is clean and safe for consumption. Where practicable, we will ensure drinking water outlets are fed directly from mains water supplies without the use of storage vessels. Where this is not possible, drinking water outlets will be tested regularly to ensure water remains fit for consumption.

Where stand-alone water coolers, vending machines or ice makers are required, or the filtering of water is necessary – they will use appropriately selected parts/filters in line with manufacturers recommendations, and be installed and maintained by M&E. Water sources in food preparation areas such as kitchens or communal rooms must be 'Potable' water and not tank fed.

Water Quality – Sampling & Analysis
We will sample and analyse water either on a planned basis, during routine surveillance or reactively, in accordance with sample plans and escalation procedures. Samples shall be collected, stored and transported to the United Kingdom Accreditation Service (UKAS) laboratory in accordance with British Standards BS7592:2008. Sample results in excess of industry standard safe / HSE designated safe parameters shall be dealt with in accordance with the relevant escalation procedures.

Avoidance of Stagnation
Where water systems have a risk of stagnation due to their design or regularity of use, there is a requirement to carry out flushing of the system to replenish the water within the pipework and fittings, with fresh water from supply. The responsibility of flushing lies with the main contractor and risk assessments will be in place for systems where the likelihood of this occurrence has been identified.

All areas have in place appointed persons responsible, and main contractors are responsible for keeping records that will be stored with site logs in plant rooms, which will be available for inspection at any time. A representative of the M&E team will carry out periodic audits of flushing records.

Competence, Training and Awareness

Competence
All members of the M&E team, Contractors and persons allocated with departmental responsibility shall be suitably competent and able to carry out their allocated duties to the standard required, safely and on schedule. Adequately competent deputies shall be available at all times to provide cover during periods of absence that may affect task or duty schedules.

All caretaking staff shall be aware of the requirements and procedures for avoidance of cross-contamination and the control of pathogens when cleaning around water services.

All staff whose duties include the identification and flushing of little used outlets shall be given suitable instruction on the reasons for and how to carry out the required duty.

The competence of external suppliers or contractors is a mandatory requirement of tender procedures.

The competence of persons shall be assessed in accordance with their allocated duties, and where necessary additional training and instruction provided. Spot checks and audits will be undertaken to confirm these requirements have been fulfilled.

Competent persons (Trade registration)
BCC will only use water hygiene contractors that are registered members of the Legionella Control Association (LCA) to ensure that all regulatory and best practice competency standards are maintained.

Delivery Manager
Persons responsible for management of water hygiene programmes and legionella risk assessments will receive suitable 'duty holder' training and qualification, for example:

• BOHS P900/P901 Control of Legionella in Hot and Cold-Water Systems

• Other equivalent City & Guilds, CIBSE or HABC 'responsible person' and ACoP L8 training

Legionella awareness (L8 Hot & Cold Water Systems)
Colleagues who are involved in the practical monitoring of water systems, e.g. temperature checks, flushing, TMVs6, etc. will receive suitable L8 Hot & Cold Water System awareness training (level 1).

General Legionella awareness
All persons with responsibilities identified within this policy and associated procedures will receive relevant basic legionella awareness training. This may be delivered in the form of e-learning.

Records will be kept of all training and awareness delivered in line with this policy and will be monitored as part of overall compliance training performance measures.

Training
All persons with responsibilities identified within this policy and associated procedures will receive relevant basic legionella awareness training. This may be delivered in the form of e-learning. Relevant engineers also undertake the Water By-Laws course, provided by external training centres.

Record Keeping
Records of all relevant activity, from appointments and risk assessments, to flushing records and corrective actions shall be maintained by those appointed in accordance with standard procedures. Records shall show the date and time of any task or duty undertaken and the name and/or signature of the person(s) carrying out the task, as applicable. Each applicable building will have a record or log-book kept locally, on-site.

Incident Management
Any incidents associated with water safety and hygiene shall be managed by the Health & Safety Team in accordance with BCC Incident Plans. Members from the M&E Team will provide support and assistance, including providing emergency services to prevent harm or ill health to tenants, staff and visitors. The M&E team

will provide support to the incident management team by coordinating any necessary resources to undertake engineering works required, including assistance with investigation.

During day-to-day operations, it is expected that site operatives are to identify and report back to the M&E team, and any documents or records of incidents will be kept both in the on-site log and returned to the M&E team.

Audit & Review
The implementation of this policy including procedures, certification and monitoring records will be audited and reviewed when a need is identified and will be carried out by a competently trained and appropriately positioned member of staff.

Where checks or audits identify non-compliances competently trained staff will ensure that appropriate follow up action is taken in accordance with the risk posed.

The policy will be supported by a Water Safety Plan and Standard Operating Procedures, which both shall be reviewed on an annual basis by an appointed person within the M&E Team. This policy shall be reviewed bi-annually.

Compliance and Regulatory Review
Legionella Risk assessments are reported to management teams on a quarterly basis and supplied to the regulators annually, as per the regulatory requirements.

Appendix A – Legal and Policy Content

List of regulations, standards or policies that are relevant to Water Safety. This list is not exhaustive. Duty Holders and/or engineers are expected to be aware of updates or changes to the regulations within the industry.

- Health & Safety Executive (2013) Legionnaires' disease; The control of legionella bacteria in water systems, Approved Code of Practice & Guidance on Regulations (L8).
- Health & Safety Executive (2014) Legionnaires' disease; Part 2 The control of legionella bacteria in hot and cold-water systems (HSG 274 Part 2).
- Health & Safety Executive (2013) Legionnaires' disease; Part 3: The control of legionella bacteria in other risk systems (HSG 274 Part 3).
- Department of Health (2006); Water Systems Health Technical Memorandum 04-01: The Control of Legionella, hygiene, "safe" hot water, cold water and drinking water Part A: Design, Installation & Testing.
- Department of Health (2006); Water Systems Health Technical Memorandum 04-01: The Control of Legionella, hygiene, "safe" hot water, cold water and drinking water Part B: Operational Management.
- British Standards Institute (2015): BS8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages – Complimentary guidance to BS EN 806.
- British Standards Institute (2010): BS8580:2019 Water Quality – Risk assessments for Legionella Control – Code of Practice.
- British Standards Institute (2008): BS7592:2008 Sampling for Legionella bacteria in water systems – Code of Practice.
- British Standard: BS 8680:2020 Water quality. Water Safety Plans. Code of practice. BS 8680:2020 sets out guidance and recommendations for developing a Water Safety Plan (WSP) for building water systems.
- BS 8680:2020 covers how to conduct a risk assessment to ensure the safety of employees and the public. It cross-references BS 8580:2019 on risk assessments for Legionella.
- Thermostatic Mixing Valve Manufacturer's Association (2000); Recommended Code of Practice for Safe Water Temperatures.
- Department of Health (2013); Health Building Note 0-09 Infection Control in the Built Environment.
- Chartered Institution of Building Services Engineers (2013); TM13:2013 Minimising the risk of Legionnaires' disease.
- Water Supply (Water Fitting) Regulations, 1999. These regulations govern the design, construction and use of water fittings and materials in water systems, and make provision for preventing contamination, waste, misuse, undue consumption and erroneous measurement of water supplied by a water undertaker. Certain aspects of these regulations support the control of legionella, including the approval of products for use by the Water Regulations Advisory Scheme (WRAS).
- The Water Supply (Water Quality) Regulations 2018. These Regulations supplement Chapter III (Water Supply) of the Water Industry Act 1991 and revoke and replace the Water Supply (Water Quality) Regulations 2010. They are primarily concerned with the quality of water supplied by water undertakers whose areas are wholly or mainly in Wales for drinking, washing, cooking and food preparation, and for food production.

Appendix B Glossary of terms

Approved Code of Practice (ACOP):
A document approved by the Secretary of State giving guidance and technical information to assist in satisfying regulations.

Authorising Engineer (AE):
An independent professional advisor for the specialist service.

Authorised Person (AP):
A person appointed with key operational responsibility for the specialist service.

Competent Person (CP):
A person authorised by the AP to provide skilled services, installation and/or maintenance.

Contractors and Subcontractors:
Company, business or person that carries out work for BCC as part of providing a range of goods and services to BCC multi-occupancy dwellings, blocks and EPDs.

Dead leg / Blind end:
Pipework that is 'T'd off with a cap end and pipe on T is serving nothing.

Health & Safety Guidance Note (HSG):
A document produced by the HSE to provide guidance in technical areas of health & safety.

Legionella:
A pathogenic bacterium commonly found in water systems with the potential to cause Legionnaires' disease through inhalation of contaminated water droplets.

M&E Team:
The Mechanical, Electrical and Heating Team.

Potable Water:
Water within a building that is safe for human consumption. Drinking water.

Project Engineer (PE):
Mechanical or electrical engineers overseeing day-to-day management of the contractors responsible for providing a range of services to our multi-occupancy dwellings, blocks and EPDs.

Relevant buildings:
All HRA-owned buildings where BCC's M&E team have a responsibility to carry out Water Safety preventative measures. Buildings will fall under different types and categories requiring different safety measures. Detail on this can be found in the Water Safety Plan.

Responsible Person (RP):
A person with day-to-day responsibility for managing and controlling all identified risks from water quality to protect the health and safety of others.

Risk:
The likelihood of a hazard such as hot water or Legionella causing harm.

Scalding:
A thermal burn of the skin from contact with hot water.

Senior Project Engineer (SPE):
A manager with operational and professional responsibility for a range of specialist services within the M&E team. (M&E Team manager and the Programme Engineer).

Schematic Drawing:
A representative drawing of a water system showing key components and configuration to aid comprehension.

Thermostatic Mixing Valve (TMV):
A device that mixes hot and cold water with adjustable limits for the prevention of scalding.

Tradesperson:
A person with specialist skills in a trade background.