



SMS Environmental Ltd

Quad One
Becquerel Avenue
Harwell Campus
Didcot
OX11 0RA

Risk Assessment (UKAS Accredited)

Task Information

ID	1124389
Task Category	Legionella
Building	3ROBI1_Ext_Com_B27 ROBINSON HOUSE (1 - 27)
Building Address	HORDEN, PETERLEE,
Building Code	3ROBI1_Ext_Com
Assigned Users	Ashley Passmore (13/01/2025 17:00:00)
Finished By	Ashley Passmore (14/01/2025 15:08:57)
Description	Residential Risk Assessment (UKAS Accredited)
Further Information	Legionella risk assessment to be completed in line HSG274 part 2 , all areas of the building are to be included , including any commercial areas

Client Details

Code	BH001	Contact	Andrew Graham
Name	Believe Housing	Phone	0300 131 1999
Address	Coast House, Spectrum 4, Spectrum Business Park, County Durham		

Client Details

Site Name	3ROBI1_Ext_Com_B27 ROBINSON HOUSE (1 - 27)
Site Address	Horden, Peterlee, County Durham
Site Contact	Andrew Graham
Site Postcode	SR8 4DD
Telephone Number	0300 131 1999
Client	Believe Housing
Client Address	Coast House, Spectrum 4, Spectrum Business Park, County Durham
Client Postcode	SR7 7TT
Risk Assessor	Ashley Passmore
Quality Controlled By	Samantha Carter
Date of Survey	13/01/2025
Issue Date	26/02/2025
Name of the person who receive risk assessment	Emma Jorgenson
Site Photograph	 3ROBI1_Ext_Com_B27 ROBINSON HOUSE (1 - 27)
Recommended Review Date	14/01/2027

Risk assessment should also be reviewed whenever there is reason to believe that it is no longer valid. This could be due to change of building usage or installation of new plant and equipment or following a case of Legionnaires Disease. In the event of the outbreak of legionellosis please refer to HSG274 Part 2 Appendix 2.3 <http://www.hse.gov.uk/pubns/priced/hsg274part2.pdf> This Risk Assessment has been carried out in accordance with HSE ACoP L8, BS 8580-1:2019, ISO 17020, HTM 04-01 (Healthcare Site Only) and HSG274 Part 2

Note: A separate assessment is required for each building or site.

Template Version: 10072024

Document Version Control:

Version 2 - Hazard 643917- removal of reference to flat 12 as it does not have a shower. Outlet register - Bib taps changed from 2 to 3

Overall Legionella Risk Rating

Medium

Overall Scalding Risk Rating

Low

Table of Contents

Risk Assessment Methodology	6
Management Personnel	8
Nominated Authorities	9
Executive Risk Summary	11
Risk Assessment	12
Documentation and Records	17
General Asset Register	19
Incoming Mains Water - 1	21
Calorifier and Hot Water Storage - 1	22
Hydraulic Accumulators and Expansion Vessels - 1	24
Showers and Spray Producing Outlets - 1	25
Showers and Spray Producing Outlets - 2	27
Showers and Spray Producing Outlets - 3	29
Showers and Spray Producing Outlets - 4	31
Showers and Spray Producing Outlets - 5	33
Showers and Spray Producing Outlets - 6	35
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 1	37
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 2	39
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 3	41
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 4	43
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 5	45
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 6	47
Thermostatic Mixing Valves And Thermostatic Mixing Taps - 7	49
Outlet Asset Register	51
Thermometer Used to Complete RA	53
Temperatures - 1	54
Temperatures - 2	54
Temperatures - 11	54
Temperatures - 12	54
Temperatures - 13	54
Temperatures - 14	54
Temperatures - 15	54
Temperatures - 16	54
Temperatures - 17	54
Temperatures - 18	55
Temperatures - 19	55
Temperatures - 20	55
Temperatures - 3	55
Temperatures - 21	55

Temperatures - 22	55
Temperatures - 23	55
Temperatures - 24	56
Temperatures - 25	56
Temperatures - 26	56
Temperatures - 27	56
Temperatures - 28	56
Temperatures - 29	56
Temperatures - 30	56
Temperatures - 4	56
Temperatures - 5	57
Temperatures - 6	57
Temperatures - 7	57
Temperatures - 8	57
Temperatures - 9	57
Temperatures - 10	57
Blind Ends and Dead Legs - 1	58
Blind Ends and Dead Legs - 2	59
Blind Ends and Dead Legs - 3	60
Closed Water Systems	61
Water Connections to Outside Services - 1	62
Water Connections to Outside Services - 2	63
Water Connections to Outside Services - 3	64
Notes on Water Connections to Outside Services	65
Sampling Requirements	66
Review of Written Scheme to Control Legionella Risk	67
Schematic Drawing	74

Risk Assessment Methodology

Scope Of The Risk Assessment

The agreed scope of works for this document is to assess any risks arising from the possibility of the amplification of Legionella bacteria, within the domestic hot and cold water systems at this site.

Any health and safety risks noted as part of this risk assessment are done so for guidance only and fall outside the scope of our UKAS accreditation.

Scalding has been considered within this risk assessment and any notes are for guidance only. Non UKAS Hazards raised where scalding was found to be a risk. No other health and safety risks observed.

Risk Assessment Methodology

Step 1: Identify The Hazards

Step 2: Decide Who Might Be Harmed And How

Step 3: Evaluate The Risks

Step 4: Decide On Precautions Or Controls

Step 5: Record Findings And Implement Them

Step 6: Review Your Findings And Update If Necessary

Site Description

Robinson House is two storey residential property containing 26 flats and an attached bungalow. The mains enters the building via the Bungalow (No1) and serves all the cold water outlets and water system assets. Hot water is provided by a single 298L Calorifer which is circulated around the flats and located in the Boiler room. There is a second Calorifer which is isolated from the water system. There are communal areas in the building which include a communal kitchen, toilets, laundry room, shower rooms and external bib taps. The flats typically have a similar layout with a knit hen sink and bathroom with a toilet, wash hand basin and either a bath OR shower. TMVs have been installed in the communal areas and bathroom outlets in the flats to reduce the risk of scalding, shower rooms contain electric showers. The assessor did not locate any CWS Tanks on site.

Limitations Of The Risk Assessment

The assessor could not fully trace all the pipe work throughout the building and therefore assumptions have been made regarding the layout of pipe work in the schematic drawing. The assessor is limited to the information made available by the client, the on site records and on site personnel during the risk assessment. The assessor was unable to access Flats: 8 and 20.

If there are limitations how could they impact on the outcome of the risk assessment?

The assessor would not be able to confirm the outlets in the inaccessible flats and therefore the schematic drawing will be missing information. The outlets in flats 8 and 20 could not be confirmed.

Profile of the Building Users and how they may be harmed?	This building is an Independent Living residential building for residents that are elderly, disabled and/or have medical or psychological conditions. It is reasonable to assume that people known to be at a high risk of contracting Legionnaires disease and scalding will use the building; for example, men appear more susceptible than women, as are those over 45 years of age, smokers, alcoholics, diabetics and those with cancer or chronic respiratory or kidney disease or other underlying health issues.
Has this site or area been defined as Augmented Care?	No
Has there ever been a case of Legionnaires Disease associated with this site?	Not that can be determined
Has Legionella bacteria been ever isolated from the water system?	Yes, legionella sampling from the Guest Room has legionella positives, refer to Socius Database for details
Current method used to control Legionella?	Temperature
Notes on control method:	-
Does this site have a current Legionella Logbook?	Yes - Digital Logbook
Who was interviewed during the assessment?	Andrew Graham
Who was your competent escort on site?	Andrew Graham
This UKAS Accredited risk assessment is was produced using documented in-house methods based on ACoP L8 and BS 8580-1:2019. Method reference numbers are: MS80 & IMS75.	
This Risk Assessment has been carried out in accordance with the requirements of ISO17020 Clause 4 Impartiality and Independence as described in the SMS Environmental IMS76 Impartiality Policy.	No impartiality issues
Risk Assessor competence has been checked and established using the procedure detailed SMS HR57 Legionella Risk Assessor Training & Competency Program and UKAS RG9 Accreditation of Bodies Undertaking Legionella Risk Assessment Activities, competency checks form part of the UKAS accreditation process.	
I confirm I have the necessary training, skills, experience and knowledge to complete a competent risk assessment of this type of system (INSERT NAME).	Ashley Passmore

Management Personnel

STATUTORY SITE DUTY HOLDER

A senior executive with budgetary control who ensures that the operation complies with the law, by appointing and overseeing a competent Responsible Person. All appointments should be made and accepted in writing.

NOMINATED RESPONSIBLE PERSON

This person would report to the statutory site duty holder and have day-to-day responsibility for ensuring that operational duties are carried out in a timely and effective manner and ensuring the adequate training and competence of themselves, operational staff and any contractors or subcontractors. This person should also be responsible for the accurate audit of the Site Log Book.

OPERATIONAL STAFF

Staff whose duties include inspection, monitoring, implementing, record keeping and carrying out of remedial actions. There should be adequate record keeping of their on-going training and regular assessment of their competence.

SERVICE PROVIDERS

For example: Risk Assessors, monitoring companies, Consultants, and contractors carrying out such duties as water treatment and cleaning and disinfection. Information should also be available to show the competence of individuals and the contact details of all relevant personnel within the service provider company

The Client should satisfy himself that:

- Each of the above can be clearly identified;
- That they are aware of the contact details of others in the chain of command;
- Each role has a competent Deputy identified;
- That each post has been accepted in writing; and
- That there is a separate sheet for each position showing training records and competency assessment.

* It is the responsibility of the Nominated Responsible Person to ensure that Logbooks are kept up to date and that actions are implemented.

Has the risk assessment process been able to successfully identify a formal nominated authorities or Water Safety Group structure?

Yes the management structure is detailed on the electronic log book system

Does review of the current management structure find that all required information is present and correct?

All management structure information provided has been confirmed as present and correct

Is the liaison and communication between the duty holder and the responsible person effective?

Yes, there are regular meetings between all the nominated responsible people, management and service providers. There are records available on Opuz detailing minutes of meetings with nominated authorities and service providers.

In a healthcare setting, is the liaison and communication between the duty holder, the responsible person, and the Water Safety Group effective and robust?

This building is not located

Nominated Authorities

DESIGNATION	NAME	POSITION	TELEPHONE NO
STATUTORY DUTY HOLDER	Alan Smith	Chief Executive	0300 131 1999
NOMINATED RESPONSIBLE PERSON	Emma Jorgensen	Compliance Manager	0191 8142900 / 07384523636
DEPUTY NOMINATED RESPONSIBLE PERSON	Andrew Graham	Compliance Officer	0191 8143081 / 07901510712
OPERATIONAL STAFF 1	Contego (Various Staff)	Cleaners	-
OPERATIONAL STAFF 2	-	Facilities Office	07384523628
OPERATIONAL STAFF 3	-	-	-
SERVICE PROVIDERS	HSL Compliance	Water Monitoring Contractor	07823499745 / 07909706236
SERVICE PROVIDERS	SMS Environmental Ltd	Legionella Risk Assessors	01235 835835

Risks of Exposure to Legionella Bacteria Health and Safety Law¹

Duties under the **Health and Safety at Work etc. Act 1974** apply to the risks from exposure to legionella bacteria that may arise from work activities. **The Management of Health and Safety at Work Regulations 1999** provide a broad framework for controlling health and safety at work. As well as requiring risk assessments, they also require employers to have access to competent help in applying the provisions of health and safety law; to establish procedures for workers if there are situations presenting serious, imminent danger; and for co-operation and co-ordination where two or more employers or self-employed people share a workplace. More specifically, COSHH provides a framework of actions designed to control the risk from a range of hazardous substances, including biological agents.

Only the courts can give an authoritative interpretation of law on the application of these Regulations and guidance to people working under another's direction. If people working under the control and direction of others are treated as self-employed for tax and national insurance purposes, they may nevertheless be treated as employees for health and safety purposes. So, it may be necessary to take appropriate action to protect them. If there is any doubt about who is responsible for the health and safety of a worker, clarify this and include it in the terms of a contract. However, a legal duty **under section 3 of the HSW Act** cannot be passed on by means of a contract. You will still have duties towards others under section 3 of the HSW Act. If you employ workers on the understanding that they are responsible for their own health and safety, seek legal advice before doing so.

For section 3 to apply:

- a) there must be a duty holder – either an employer or a self-employed person; and
- b) there must be a risk to the health or safety of a person who is not an employee of the duty holder or the self-employed duty holder themselves; and
- c) that risk must arise from the conduct of the duty holder's undertaking. 'Undertaking' means 'enterprise' or 'business'.

Section 3 does not apply to:

- d) welfare issues (such as the provision of toilets or washing facilities);
- e) nuisance or amenity issues that have no health or safety implications (such as unpleasant smells arising from work activities);
- f) poor workmanship, where trading standards or contractual remedies may exist, unless they have demonstrably compromised health and safety.

Control of substances hazardous to health regulations 2002 (as amended in 2004) (COSHH) provides a framework of actions designed to control the risk from a range of hazardous substances, including biological agents. The essential elements of COSHH are:

- a) risk assessment;
- b) where reasonably practicable, prevention of exposure or substitution with a less hazardous substance, or substitution of a process or method with a less hazardous one;
- c) control of exposure, where prevention or substitution is not reasonably practicable;
- d) maintenance, examination and testing of control measures;
- e) provision of information, instruction and training for employees;
- f) health surveillance of employees (where appropriate, and if there are valid techniques for detecting indications of disease) where exposure may result in an identifiable disease or adverse health effect.

¹HSE (2013) Legionnaires' disease: The control of legionella bacteria in water systems Approved Code of Practice and guidance on regulations L8 4th Edition Available From <http://www.hse.gov.uk/pubns/priced/l8.pdf>

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR) require employers and others, e.g. someone who has control of work premises, to report to HSE, accidents and some diseases that arise out of or in connection with work. Cases of legionellosis are reportable under RIDDOR if: a) a doctor notifies the employer; and b) the employee's current job involves work on or near cooling systems which are located in the workplace and use water; or work on water service systems located in the workplace which are likely to be a source of contamination. For more guidance on RIDDOR, see the HSE Website. Those who have, to any extent, control of premises, have a duty under the **Notification of Cooling Towers and Evaporative Condensers Regulations 1992** to notify the local authority in writing with details of 'notifiable devices'. These are cooling towers and evaporative condensers, except when they contain water that is not exposed to the air and the water and electricity supply are not connected. If a tower becomes redundant and decommissioned or dismantled, it should also be notified. Although the requirement is to notify the local authority, the relevant authority (i.e. HSE or the local authority) for the premises concerned enforces the Regulations. Notification forms are available from the local authority or local environmental health department. The main purpose of these Regulations is to help investigate outbreaks.

The Safety Representatives and Safety Committees Regulations 1977 and the **Health and Safety (Consultation with Employees) Regulations 1996** require employers to consult trade union safety representatives, other employee representatives, or employees where there are no representatives, about health and safety matters. This includes changes to work that may affect their health and safety at work, arrangements for getting competent help, information on the risks and controls, and planning of health and safety training. Similar legislation applies in Northern Ireland, Isle of Man and the Channel Islands.

You can find more on the control of legionella bacteria in water systems at the HSE's website <http://www.hse.gov.uk/legionnaires/index.htm>

Executive Risk Summary

Risk Criteria	Commentary	Risk Rating
Management: An assessment of Legionella control on site, It is important that those people involved in assessing risk and applying precautions are competent, trained and aware of their responsibilities	There is a list of nominated authorities in place with a good management structure. The relevant nominated authorities have been suitably trained. There is Legionella control program in operation although not fully compliant with HSG274 part 2.	2
Contamination. An assessment of the risk at source, including assessment of the quality, temperature and integrity of the water supply.	The buildings water source is wholesome mains water, supplied from the local water undertaker. Mains water is provided following a treatment and filtration processes to reduce the amount of bacteria and contaminants. It is however inevitable that bacteria will enter the water system, the mains water was found to be supplied below 20C. There are additional routes of contamination at this site as there is a quick fill link attached which is eliminating the air gap between the domestic water system and the closed system. There multiple Shower heads that are able to reach the drains which creates an additional route of contamination for bacteria.	3
Amplification. An assessment of the conditions and whether they are likely to support any Legionella growth, including temperature, water change rate, nutrients, materials of construction and areas where water is not replaced with fresh.	The assessor found some low risk amplification hazards, for example scale on outlets and Deadleg pipework. There is an expansion vessel in place however there is no evidence of maintenance records and the vessel does not have a drain valve installed. The assessor located in some bathrooms that there are TMVs serving Shower TMVs which can create Deadleg pipe work. The water system is mains fed throughout and the hot and cold water temperatures were found to be compliant. There is a Legionella control program in place and sampling results show instances of Legionella bacteria from the guest room which the client has since removed from the water system. There can be some improvements to the Legionella control program as it currently does not fully comply with guidance from HSG264 part 2.	4
Transmission. An assessment of whether droplets or aerosols are likely to form and spread.	There are multiple showers on site that will create breathable aerosols and droplets. There are no other spray taps and a plate shower were located. The number of showers will increase the risk of bacteria being contracted from the water system.	3
Exposure. An assessment of the risk that droplets or aerosols will be inhaled (or contaminated water aspirated).	The showers are located in the bathrooms and shower rooms which will keep the aerosols and droplets contained in a small area, the time that the user will be exposed will generally be for a short period.	2
Susceptibility of individuals exposed. An assessment of the nature of the exposed population, taking account of their vulnerability to Legionella Infection.	This building is an Independent Living residential property for residents that are elderly, disabled and/or have medical conditions. It is reasonable to assume that people known to be at a high risk of contracting Legionnaires disease and scalding will use the building; for example, men appear more susceptible than women, as are those over 45 years of age, smokers, alcoholics, diabetics and those with cancer or chronic respiratory or kidney disease or other underlying health issues.	6
Overall Site Risk Summary	Medium. Management action required to ensure that the legionella control onsite fully complies with the guidance available in HSG274 part 2 and ACOP L8. Remedial action required to remove potential sources of amplification from the building	4

The overall site risk rating is calculated thus. The highest individual risk rating per criterion is entered against the risk rating column, any criteria that had no hazards loaded against them must therefore be given a low risk rating. The arithmetic mean is then calculated using the following formula:

$$\bar{x} = \frac{1}{n} \left(\sum_{i=1}^n a_i \right)$$

Where:

- \bar{x} = Arithmetic Mean
- n = Number of terms
- a_i = the value of each individual term

The overall site risk rating is reported numerically from 1 to 9 as detailed in table 1 and using the same priority action time frame recommendations derived from table 2.

Risk Assessment Risk Rating System

Definitions

- Hazard identification:** process of recognizing that a hazard (3.8) exists and defining its characteristics;
- Hazard:** hazard source, situation, or act with a potential for harm in terms of human injury or ill health or a combination of these;
- Risk:** combination of the likelihood of an occurrence of a hazardous event or exposure(s) and the severity of injury or ill health that can be caused by the event or exposure(s)
This risk scoring system covers;
- Risk assessment:** process of evaluating the risk(s) arising from a hazard(s), taking into account the adequacy of any existing controls, and deciding whether or not the risk(s) is acceptable

Risk Assessment

This risk scoring system is informed by 'BS 8580-1:2019 Water quality – Risk assessments for Legionella control – Code of practice', and HSE Guidance on Risk Management available from their website. During a risk assessment hazard identification will take place and each hazard risk rated evaluating the following parameters:

1. **Contamination.** An assessment of the risk at source, including assessment of the quality, temperature and integrity of the water supply.
2. **Amplification.** An assessment of the conditions and whether they are likely to support any Legionella growth, including temperature, water change rate, nutrients, materials of construction and areas where water is not replaced with fresh.
3. **Transmission.** An assessment of whether droplets or aerosols are likely to form and spread.
4. **Exposure.** An assessment of the risk that droplets or aerosols will be inhaled (or contaminated water aspirated).
5. **Susceptibility of individuals exposed.** An assessment of the nature of the exposed population, taking account of their vulnerability to Legionella Infection.

An Explanation of the Risk Rating System

During the risk assessment, individual hazards will be identified and risk rated using the scoring matrix derived from BS 18004 and the HSE website (See Figure 1) this will evaluate per type (contamination, amplification, transmission, exposure and host susceptibility) for individual hazards.

Likelihood of Harm Occurring	Potential Severity of the Harm		
	Slightly Harmful 1	Harmful 2	Very Harmful 3
Highly Unlikely 1	Trivial 1	Tolerable 2	Moderate 3
Unlikely 2	Tolerable 2	Moderate 4	Substantial 6
Likely 3	Moderate 3	Substantial 6	Intolerable 9

² HSE (No Date) Frequently asked questions. "What are risk matrices?" Available from: <http://www.hse.gov.uk/risk/faq.htm>

Rating	Risk	Priority Action Time Frame
1	Trivial (Very Low)	Within 5 Years
2	Tolerable (Low)	Within 1 year
3 - 4	Moderate (Medium)	Within 6 Months
5 to 6	Substantial (High)	Within 1 Month
7 to 9	Intolerable (Very High)	Within 48 Hours

Table 2 Priority Action Time Frame

Individual hazards have received a risk score should be managed within that time period. The overall risk rating for the site will be an evaluation of all recorded risks and is communicated in the Risk Summary Page

Are there any known periods of time that this site or parts of this site may become vacant?

This building is operational all year round with no planned periods of shutdown.

Is there an adequate programme of control in place during periods of little use?

There is no requirement for a flushing program for periods of shutdown. Any little used outlets within the building will be required to have a weekly flushing program implemented.

* Timescale that controls should be implemented based on risk and cost or difficulty of corrective action

Potential Hazards	Risk	Control to Mitigate Assessed Risk?	Residual Risk if Control is Implemented?	Timescale*	Image
<p>ID:643908</p> <p>Amplification risk: HSG274 part 2, page 18, 2.31 The design of the water systems should identify and take into account the following factors: water components that may increase the risk of colonisation, eg flexible hoses. There are flexible hoses fitted to wash hand basins and sinks. Flexible hoses should only be used where necessary, as they have an internal lining which could support the growth of bacteria.</p>	Very Low (1)	Replace all flexible hoses with copper pipe, unless absolutely necessary to keep the flexible hoses in place. Ensure that the hoses if hose remains or any replacement materials are WRAS approved. Any remaining flexible hoses supplying outlets with failed sampling results will require removal.	Very Low (1)	Within 5 Years	 <p>Example of Flexible Hoses</p>
<p>ID:643909</p> <p>Contamination risk: The quick fill link in the Boiler Room is still connected to the pipework which contravenes water regulations as there should be an air gap between the domestic cold water and central heating systems, this is against the current water regulations (refer to Water Regs Schedule 2, paragraph 24).</p>	Low (2)	The assessor recommends disconnecting the temporary filling link and storing safely until required to create discontinuity between the domestic water supply and heating system.	Very Low (1)	Within 1 Year	 <p>Quick Fill Link Attached</p>
<p>ID:643910</p> <p>Amplification risk: There is an Expansion vessel installed however a drain valve for the expansion vessel is not present refer to the guidance of HSG274 part 2 page 22. Note: The water in the supply pipe work is at least 50oC (due to hot water back-flowing into the cold supply (non return valve is fitted on the cold supply)) which will provide some control of bacteria.</p>	Low (2)	Ensure that the expansion vessel is fitted a drain valve following the guidance of HSG 274 part 2 guidance.	Very Low (1)	Within 1 Year	 <p>Expansion Vessel</p>
<p>ID:643911</p> <p>Amplification risk: Some of the outlets in the building in various locations have scale, including where applicable flow straighteners, aerators, rosettes and/or other tap attachments which is an amplification risk. Scale can be a nutrient and help promote the growth of bacteria. Refer to HSG274 part 2, page 4, section 11.</p>	Low (2)	Regularly monitor all outlets within the building for scale build up and ensure taps are regularly cleaned and free from scale when necessary.	Very Low (1)	Within 1 Year	 <p>Example of an outlet with scale</p>
<p>ID:643912</p> <p>Amplification risk: There are showers identified in Flats 21 and 24 with no documented descaling and disinfection regime records available for the assessor to review at the time of the risk assessment. HSG274 part 2, page 32, table 2.1, details that shower heads should be dismantled and descale on a quarterly basis.</p>	Medium (3)	Implement a documented maintenance descaling and disinfection regime on all showers.	Very Low (1)	Within 6 Months	 <p>Example of a shower in Flat 24</p>

Potential Hazards	Risk	Control to Mitigate Assessed Risk?	Residual Risk if Control is Implemented?	Timescale*	Image
<p>ID:643913</p> <p>There are expansion vessels in the building for which no documented maintenance records were available for review at the time of the risk assessment. By design, expansion vessels can increase the risk of bacterial proliferation as they may not promote regular throughput of fresh water and are constructed of materials which are known to support growth. Note: There are expansion vessel records available for review however the records are not detailed and don't confirm if the expansion vessel is the domestic vessel or the central heating vessel.</p>	Low (2)	Set up a 6 Monthly inspection regime (refer to written scheme), including flushing where possible, for expansion vessels with all actions documented.	Very Low (1)	Within 1 Year	No Image
<p>ID:643914</p> <p>Amplification risk: There is a calorifier on site with no records of an annual inspection to check the internal condition of the calorifier. This could mean that there is debris or scale building up in the vessel acting as a nutrient for legionella bacteria. Refer to HSG274 part 2, page 31 table 2.1. Note: There is a record of the Calorifier being checked.</p>	Medium (4)	Implement a documented annual internal inspection of the calorifier check. Clean and disinfect as required by internal condition.	Very Low (1)	Within 6 Months	 <p>Example of a Calorifier inspection record</p>
<p>ID:643915</p> <p>Amplification risk: The assessor has found that Calorifier 2 is isolated. This is creating two o deadlegs in the water system, as the cold water in the supply and hot water in the flow pipe work can become stagnant creating an environment favourable for the proliferation of bacteria in the water system. Refer to HSG274 part 2, page 7, section/paragraph 23</p>	Low (2)	Remove the Deadleg pipe work Or bring the Calorifier 2 back into operation to eliminate the Deadleg pipe work being created.	Very Low (1)	Within 1 Year	 <p>Isolated Calorifer (No 2)</p>
<p>ID:643916</p> <p>Amplification risk: The mains feed to the pressurisation unit in the Boilet room is deemed as a potential dead leg. The water within this pipework can stagnate and provide an environment suitable for the proliferation of legionella and other bacteria. There is no back flow protection installed on this pipe work.</p>	Low (2)	Install back flow protection at the source of the common supply to isolate the deadleg being created.	Very Low (1)	Within 1 Year	 <p>Supply to Pressurisation Unit</p>
<p>ID:643917</p> <p>Contamination risk: The shower heads in the flats were found to be able to reach the drains as a retaining loops wer not used or fitted. This is against the current water regulations and could lead to contamination of the shower head and hose and potentially the water supply.</p>	Medium (3)	Ensure that all showers in the flats are either; fitted with short enough hoses, so as not to be able to reach the drain OR that retaining loops are fitted and used.	Very Low (1)	Within 6 Months	 <p>Shower no fitted with a shower retaining loop</p>

Potential Hazards	Risk	Control to Mitigate Assessed Risk?	Residual Risk if Control is Implemented?	Timescale*	Image
<p>ID:643918</p> <p>Amplification risk: In Flat 3, 6, 11, 13, 14, 18 and 25 there are TMVs fitted prior to the TMV serving the showers. The cold pipework is also connected to the shower TMV. This pipework will not be getting sufficient flow through and will be acting as a potential dead leg in the system where water can stagnate and provide a suitable environment for the proliferation of legionella bacteria.</p>	Medium (3)	Either remove the TMV and allow the TM tap to mix the hot and cold supplies, or disconnect the cold pipework back to the mains branch and just have the hot water after the TMV to the outlet.	Very Low (1)	Within 6 Months	 <p>Flat 13 - TMV fed shower served by a TMV</p>
<p>ID:643919</p> <p>Amplification risk: The thermometer used on the site is not uniquely identified or calibrated, calibration checked or otherwise verified. Measurement traceability is a requirement of BS EN ISO 9001:2015 section 7.1.5.2 which states "When measurement traceability is a requirement or is considered by the organization to be an essential part of providing confidence in the validity of measurement results, measuring equipment shall be: a) calibrated or verified, or both, at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; when no such standards exist, the basis used for calibration or verification shall be retained as documented information; b) identified in order to determine their status; c) safeguarded from adjustments, damage or deterioration that would invalidate the calibration status and subsequent measurement results. The organization shall determine if the validity of previous measurement results has been adversely affected when measuring equipment is found to be unfit for its intended purpose, and shall take appropriate action as necessary."</p>	Low (2)	Uniquely identify the thermometer used on site and complete a 6-monthly check against a UKAS accredited thermometer, also complete a calibration status monthly check using an ice-point check record results in site log book and replace thermometer if it fails the ice-point check.	Very Low (1)	Within 1 Year	No Image
<p>ID:643920</p> <p>Amplification risk: There are Point of use filters installed on some of the showers (in Flats 11, 13, 25) which have been in use for a very short period. Any bacteria in the water system will not be flushed out of the system and can pool at the filters enabling the bacteria to seed back into the water system. This is due to a positive legionella sample from the Guest Room and the POU filters are part of the strategy to manage the water system until control is regained.</p>	Medium (4)	The client should review their continued use, ensure an action plan is created and enacted to make certain they are changed at the intervals specified by the manufacturer. Measures should be taken to ensure that control is regained and filters are not required.	Very Low (1)	Within 6 Months	 <p>POU filter on shower</p>

Documentation and Records

Period of Time Reviewed for This Assessment?	The assessor has reviewed the last 12 months of records
Is there an Up-to-date logbook and schematic diagram(s) of the water system(s) to be evaluated?	Yes on the Believe Housing Database (accessed via QR code)
Is an asset list available, an asset register that includes all associated plant, pumps, strainers and other relevant items?	Yes from the previous risk assessment and on the Believe Housing Database (accessed via QR code)
Is the previous risk assessment available for review?	Yes on the Believe Housing Database (accessed via QR code)
Date of Previous Assessment?	21st February 2023
Is there evidence that the findings and required corrective actions from previous risk assessments have been addressed?	The assessor has reviewed the previous risk assessment and notes that some hazards raised from the previous risk assessment are still unresolved.
Where findings and their corrective actions identified by previous Legionella risk assessments have found to be outstanding are there any root causes which may constitute a deficiency within the current written scheme of control?	Unable to determine
Are records of any logbook checks or audits available?	Yes on the Believe Housing Database (accessed via QR code)
Evaluation of the current written scheme of control, including:	
Does the scheme have a clearly described management scheme, such as a diagram of management structure showing lines of responsibility, task allocation and communication?	Yes on the Believe Housing Database (accessed via QR code)
Are deputies identified to cover for staff sickness/holidays, etc.?	Yes on the Believe Housing Database (accessed via QR code)
Are there details of the maintenance history of the water system(s) to be assessed in the logbook?	Yes on the Believe Housing Database (accessed via QR code) and on Socius (HSL Compliance Ltd) database.
Are there training records, and records of competency checks, for on-site personnel?	Yes on the Believe Housing Database (accessed via QR code)
Has the health and safety provision for those undertaking the written scheme of control considered both site staff and contractors? And, are appropriate risk assessments and method statements available for inspection? If not raise a hazard.	There are appropriate method statements and risk assessments available on the SMS Environmental systems for SMS Engineers and Risk Assessors. Believe Housing have a process to check method statements and task specific risk assessments for contractors.
Are there monitoring and inspection records for all tasks completed? Tank inspections, temperatures, TMV checks, flushing records etc	Yes on the Believe Housing Database (accessed via QR code) and on Socius (HSL Compliance Ltd) database.
Do monitoring and inspection records indicate any deviations from acceptable operating conditions?	Temperature monitoring records show that compliant hot and cold water temperatures are being recorded.
If applicable are water treatment and service reports available?	N/A

Are cleaning and disinfection records available?	No records were available for review at the time of the risk assessment
Are legionella and other microbial analysis results available?	Yes on the Believe Housing Database (accessed via QR code)
Do microbial analysis results indicate that the current Legionella control measures are effective?	No, the guest room wash hand basin has positive legionella samples, sampling will continue until three clear consecutive legionella samples are reported. The wash hand basin has been removed from the water system.
Where past issues have been caused by positive identification of Legionella bacteria, have the correct actions been taken within a reasonable time?	Yes, Believe Housing have taken remedial action
Where past issues have been caused by positive identification of Legionella bacteria, have re-samples been collected to ensure control has been regained?	Yes on the Believe Housing Database (accessed via QR code)
Are thermometers and other site test equipment calibrated regularly, or calibration checked?	No records were available for review at the time of the risk assessment
Are records kept for five years?	Yes on the Believe Housing Database (accessed via QR code)

General Asset Register

Incoming Mains Water	1
Private Water Supply	-
Ion Exchange Water Softeners	-
Electromagnetic Water Conditioners	-
Source Water Filter	-
Type of Domestic Water System?	
Open Vented:Gravity Fed with Recirculation	-
Open Vented:Gravity Fed without Recirculation	-
Unvented	1
Boosted Water Supply	-
Cold Water Storage	-
Domestic Hot Water Services	
Calorifiers	1 - Two on site however Calorifier 2 is off line
Water Heaters (more than 15 litres)	-
POU Water Heaters (15 litres and less)	-
Combination Water Heater	-
Combination Boiler	-
Plate Heat Exchangers	-
Hot Water Buffer Store/Tank	-
Expansion Vessels	1
Hydraulic Accumulators	-
Showers	14
Air Humidification	-
Closed System (Heating)	1
Closed System (Chilled)	-

Swimming Pool	-
Spa Pool	-
Other System Assets	1x Pressurisation Unit
Miscellaneous	Various appliances installed on the water system

Incoming Mains Water - 1

Incoming Water Supply



Incoming Mains

Additional Area Photo for Context (Optional)

No Image

Source

Mains Water

Location

Bungalow (No1)

Diameter

3"

Is there an isolation valve?

Yes

Does the isolation valve work?

Yes

Is there some form of Backflow Protection on the Incoming Mains?

Not seen

Is there a water meter fitted? If so, please note the consumption figure at the time of the RA.

No meter located

Calorifier and Hot Water Storage - 1

Asset No.	HWS01
Asset Make & Model	Lochinvar - CE200 Auto
System type? Open vented or unvented	Unvented
Asset Location	Boiler Room
Area Served	Domestic Hot Water
Construction Material	Stainless Steel
Size(m): Diameter	0.7
Size (m): Radius	0.35
Size (m): Height	1.64
Capacity (L)	297
Flow pipework size in mm?	42mm
Return pipework size in mm?	35mm
Period Of Operation	24hrs
Heating Method	Direct Gas
Drain Valve	Yes
Drain Operation	Not tested
Inspection Hatch	No
Does the domestic hot water flow have a circulation pump installed?	No
Is this domestic hot water system circulated?	Yes
Calorifier Insulation	Good
Pipework Labels	Good
Set Temperature (C)	Refer to BMS
Stored Temperature (C)	60
Are there temperature gauges on flow and return pipework?	Yes
Flow Temperature (C)	57

Return Temperature (C)	54
Floor Drain	No
Nearest Power Point	<5m
Is there a solar pre-heat coil at the base of the vessel?	No
Times where there is little heat gain from the solar panels, is the entirety of the vessel heated to 60 Deg C for at least 1 hour a day?	N/A
Is stratification risk present?	No at the time time of the risk assessment
If installed, what are the anti-stratification system operation settings?	N/A
If installed, is the anti-stratification system operating as designed?	N/A
Fed from (MCWS/BCWS/CWST)	MCWS
Extra Information	-
HWS Vessel Photograph	 <p>Calorifier 1</p>
Return Pump	No Image

Hydraulic Accumulators and Expansion Vessels - 1

Asset No. (EV)	EV01
Asset Make	Jet
Asset Model	Potable Water Expansion Vessel
Asset Location	Boiler Room
Expansion Vessel Type	Diaphragm
External Condition	Good
Fed from (MCWS/BCWS/CWST)	MCWS
Pipework Diameter	22mm
Volume (L)	80
Is the vessel pressurised?	Not tested
Is it practical to flush the expansion vessel?	No drain valve
Is the vessel installed correctly?	Yes
Is the vessel the correct size and type?	The vessel appears to be the correct size and type
Appearance of drain water	None
Are Documented Maintenance Records Available?	Yes, records stored on Socius (HSL Database)
Extra Information	-
Expansion Vessel Photograph	 <p>Expansion Vessel 1</p>

Showers and Spray Producing Outlets - 1

Location of Shower(s)	Flat 19 - Bathroom
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Thermostatic Mixing Valve
Shower Valve Make & Model	Unable to determine
If there is an associated TMV is it accessible and subject to routine maintenance?	Yes, refer to Socius (HSL database)
Condition of the Shower head(s)	Good
Photo Shower System	 <p>Bath mixer shower</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>TMV serving Bath mixer shower - No access</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	Yes - Shower retaining loop not fitted
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	The length of the shower hose allows the shower head to be submerged in the bath
Have any associated risks been detailed in the risk assessment?	Yes

Showers and Spray Producing Outlets - 2

Location of Shower(s)	Flat 3, 6, 11, 13, 18, 25 - Bathroom
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Thermostatic Mixing Valve
Shower Valve Make & Model	Unbranded
If there is an associated TMV is it accessible and subject to routine maintenance?	Yes, refer to Socius (HSL database)
Condition of the Shower head(s)	Good
Photo Shower System	 <p>Mixer shower</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>Mixer shower</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	Yes - Shower retaining loop not in use
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	The length of the shower hose allows the shower head to be submerged in the bath
Have any associated risks been detailed in the risk assessment?	Yes

Showers and Spray Producing Outlets - 3

Location of Shower(s)	Ground Floor Shower Room
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Electric Shower
Shower Valve Make & Model	Redring - Selectronic Premier
If there is an associated TMV is it accessible and subject to routine maintenance?	No
Condition of the Shower head(s)	Small amount of imbedded scale present
Photo Shower System	 <p>Electric Shower</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>Shower Unit</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	No
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	A shower hose retaining loop/ring is being used to prevent submersion of the shower head or contact with the drain
Have any associated risks been detailed in the risk assessment?	None to report

Showers and Spray Producing Outlets - 4

Location of Shower(s)	First Floor Shower Room
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Electric Shower
Shower Valve Make & Model	Mira Advanced ATL
If there is an associated TMV is it accessible and subject to routine maintenance?	No
Condition of the Shower head(s)	Good
Photo Shower System	 <p>Electric Shower</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>Shower Unit</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	No
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	A shower hose retaining loop/ring is being used to prevent submersion of the shower head or contact with the drain
Have any associated risks been detailed in the risk assessment?	None to report

Showers and Spray Producing Outlets - 5

Location of Shower(s)	Bungalow (No1)
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Electric Shower
Shower Valve Make & Model	Mira Advanced ATL
If there is an associated TMV is it accessible and subject to routine maintenance?	No
Condition of the Shower head(s)	Good
Photo Shower System	 <p>Electric Shower</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>Shower Unit</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	No
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	A shower hose retaining loop/ring is being used to prevent submersion of the shower head or contact with the drain
Have any associated risks been detailed in the risk assessment?	None to report

Showers and Spray Producing Outlets - 6

Location of Shower(s)	Flat 24 and 21
Is this an individual shower or bank of showers?	Individual
How many individual shower heads in this system?	1 per shower
Fixed Shower-head or Shower Head and Hose?	Shower head and hose
Shower Mixing (Blending) Valve Type	Other
Shower Valve Make & Model	Unbranded
If there is an associated TMV is it accessible and subject to routine maintenance?	Yes
Condition of the Shower head(s)	Good
Photo Shower System	 <p>Temporary shower outlet</p>
Photo of Shower Head	 <p>Shower head condition</p>
Photo of Shower Valve Type	 <p>TMV serving shower</p>
Other Spray Producing Outlet?	-

Other Spray Producing Outlet Photo	No Image
Other Spray Producing Outlet Spray Head Photo	No Image
Do showers or spray producing outlets present a foreseeable Legionella risk?	Yes - The showers fitted on to the bath outlets in flats 21 and 24 do not appear on the shower head descaling program
Does the length of the shower hose allow submersion of the shower head or contact between the shower head and the floor/drain?	The length of the shower hose allows the shower head to be submerged in the bath
Have any associated risks been detailed in the risk assessment?	Yes

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 1

Location?	Typical Flat Bathroom TMV - Bathroom behind panel
Location Image:	 <p>Behind Bathroom Panel</p>
Number of TMVs in this Location?	1 per flat bathroom
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	No, full body submersion
Type of TMV?	TMV3
How many outlets does the TMV serve?	1-2
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	<3m
TMV Pipework Size	22mm reducing 15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	Serves baths, wash ah d basins and showers depending on the layout of the bathroom
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



Typical Flat Bathroom TMV

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 2

Location?	Flat 3, 6, 11, 13, 18, 25 - Bathroom
Location Image:	 <p>TMV fed Shower</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	No, full body submersion
Type of TMV?	TMV2
How many outlets does the TMV serve?	1
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	1.6
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	Yes, the TMV fed shower is served from a TMV in the bathroom
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	Shower outlet
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV serving shower

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 3

Location?	Lounge Kitchen
Location Image:	 <p>Under kitchen sink</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	Yes, non thermostatic mixer tap fitted
Type of TMV?	TMV2
How many outlets does the TMV serve?	1
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	1m
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	Non thermostatic mixer tap
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV serving Lounge Kitchen sink

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 4

Location?	Ground Floor - Male Toilet
Location Image:	 <p>Under Wash hand basin</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	Yes, non thermostatic mixer tap fitted
Type of TMV?	TMV2
How many outlets does the TMV serve?	2
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	0.75m
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	No
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 5

Location?	Ground Floor - Accessible Toilet
Location Image:	 <p>Under Wash hand basin</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	Yes, non thermostatic mixer tap fitted
Type of TMV?	TMV2
How many outlets does the TMV serve?	1
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	0.65m
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	Non thermostatic mixer tap
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 6

Location?	Ground Floor - Female Toilet
Location Image:	 <p>Under Wash hand basin</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	Yes, non thermostatic mixer tap fitted
Type of TMV?	TMV2
How many outlets does the TMV serve?	2
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	0.85m
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	No
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV

Thermostatic Mixing Valves And Thermostatic Mixing Taps - 7

Location?	Flat 25
Location Image:	 <p>Under Wash hand basin</p>
Number of TMVs in this Location?	1
Has the installation of the TMV been informed by a comparative assessment of scalding risk versus the risk of infection from legionella?	Unknown - Scald Risk assessment was unable for review at the time of the risk assessment
In terms of scalding is the area used by a recognised and identified risk group in terms of scalding? (very young, very elderly, infirm or significantly mentally or physically disabled people or those with sensory loss)	Yes
Could the TMV(s) be removed without increasing the scald risk?	Yes, non thermostatic mixer tap fitted
Type of TMV?	TMV2
How many outlets does the TMV serve?	2
Is the TMV incorporated into the outlet (TMT)?	No
What length of pipework is there post TMV?	0.5m
TMV Pipework Size	15mm
Is there both a hot and a cold water outlet post-TMV, rendering the cold outlet as a little-used-outlet?	No
Do the outlet(s) served house a flow restrictor, flow straightener, aerator or similar device?	No
Is/are the TMV(s) accessible for routine maintenance?	Yes
Is there a documented maintenance regime in place?	Yes, refer to Socius (HSL database)
Are isolation valves installed on the CWS and HWS to the TMV?	On HWS & CWS

Thermostatic Mixing Valve:



TMV

Outlet Asset Register

Shower Heads/Spray Outlets	
Hot & Cold Mixed Showers	11
Electric Showers	3
Emergency Showers	-
Plate Wash Heads	-
Spray Outlets (Excl. Showers)	-
Thermostatic Mixing Valves / Mixing Devices	
TMV Type 2	31
TMV Type 3	-
Thermostatic Shower Mixers	10
Non-Thermostatic Shower Mixers	-
Mixer Taps (Thermostatic)	-
Mixer Taps (Non-Thermostatic)	28
Bath/Shower Mixer (Thermostatic)	-
Bath/Shower Mixer (Non-Thermostatic)	-
TMVs Not Accessible	-
Water Outlets	
Domestic Hot Water Outlets	71
Domestic Cold Water Outlets	45
Drinking Water Outlets	26
Miscellaneous	
Drinking Water Chillers	-
Washing Machines	3
Dishwashers	-
Beverage Boilers	-

Steam Ovens	-
Potato Peelers	-
In-line Cartridge Water Filters	-
In-line Cartridge Water Conditioners	-
Outside taps and services	3
Others	3x POU filters on showers

Thermometer Used to Complete RA

Thermometer SMSE Asset ID No.	SMSE10690
Date Last Calibrated	16/08/2024
Is there a sticker indicating the next calibration date on the thermometer?	Yes
Next calibration due on	16/02/2025
Unique ID of the Timing Device during the assessment?	SMSE10690

Temperatures - 1

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 12 - Kitchen Sink	MT	6.4	54.0	0.0	Mains	-	Flexi Hose	Yes

Temperatures - 2

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 19 - Kitchen Sink	MT	8.6	53.8	0.0	Mains	Both	-	Yes

Temperatures - 11

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Ground Floor - Female WHB	TMV	6.5	53.9	42.7	Mains	-	-	Yes

Temperatures - 12

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 2 - Kitchen Sink	MT	8.4	50.2	0.0	Mains	-	-	Yes

Temperatures - 13

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 2 - Bathroom	TMV	6.8	50.1	39.1	Mains	-	Flexi Hose	Yes

Temperatures - 14

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 4 - Kitchen Sink	MT	12.8	50.2	0.0	Mains	-	-	Yes

Temperatures - 15

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 9 - Bathroom WHB	TMV	9.8	57.5	43.4	Mains	-	-	Yes

Temperatures - 16

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 10 - Kitchen Sink	MT	8.8	58.3	0.0	Mains	-	-	Yes

Temperatures - 17

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 11 - Bathroom WHB	TMV	7.7	53.7	38.5	Mains	-	-	Yes

Temperatures - 18

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 17 - Kitchen Sink	MT	10.9	50.4	0.0	Mains	-	-	Yes

Temperatures - 19

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 18 - Bathroom WHB	TMV	10.9	50.1	45.6	Mains	-	-	Yes

Temperatures - 20

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 21 - Bathroom WHB	TMV	8.6	55.2	40.4	Mains	-	-	Yes

Temperatures - 3

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 26 - Bathroom WHB	TMV	8.7	53.8	42.2	Mains	-	-	Yes

Temperatures - 21

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Guest Room - Bath	No	8.9	55.4	0.0	Mains	Both	-	Yes

Temperatures - 22

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 25 - Bathroom WHB	TMV	8.9	53.9	40.2	Mains	-	-	Yes

Temperatures - 23

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 27 - Kitchen Sink	MT	9.6	54.2	0.0	Mains	-	Flexi Hose	Yes

Temperatures - 24

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 23 - Bathroom WHB	TMV	9.3	54.4	41.7	Mains	-	-	Yes

Temperatures - 25

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 5 - Bathroom WHB	TMV	9.1	50.0	38.7	Mains	-	-	Yes

Temperatures - 26

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Bungalow (No1) - Bathroom WHB	No	6.4	53.6	0.0	Mains	Both	Flexi Hose	Yes

Temperatures - 27

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 15 - Bathroom WHB	TMV	5.9	51.5	45.1	Mains	-	-	Yes

Temperatures - 28

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 16 - Kitchen Sink	MT	7.8	50.3	0.0	Mains	-	-	Yes

Temperatures - 29

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 14 - Kitchen Sink	MT	9.1	55.6	0.0	Mains	-	-	Yes

Temperatures - 30

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 22 - Bathroom WHB	TMV	8.3	54.1	46.5	Mains	-	-	No

Temperatures - 4

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 13 - Bathroom WHB	TMV	8.9	58.0	42.6	Mains	-	-	Yes

Temperatures - 5

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 6 - Kitchen Sink	MT	10.9	50.6	0.0	Mains	Both	-	Yes

Temperatures - 6

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Flat 7 - Bathroom WHB	TMV	8.4	50.3	43.0	Mains	-	-	Yes

Temperatures - 7

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Laundry Room Sink	MT	8.1	54.2	0.0	Mains	Both	-	Yes

Temperatures - 8

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Lounge Kitchen Sink	TMV	8.0	53.6	40.5	Mains	-	-	Yes

Temperatures - 9

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Ground Floor - Male Toilet WHB	TMV	7.9	52.9	40.8	Mains	-	-	Yes

Temperatures - 10

Outlet Location	Mixed?	Cold Temp	Hot Temp	Mix Temp	MCWS/ CWST Fed	Sentinel Outlet?	Spray Tap? Flexi Hose	Compliant?
Ground Floor - Accessible Toilet WHB	TMV	18.8	53.2	41.9	Mains	-	-	Yes

*TMVs are installed to prevent scalding to users on Health & Safety grounds. Due to the blended hot water temperatures they produce they are non compliant in respect of Legionella control. Where TMVs have a comprehensive maintenance programme in place the potential risk is lowered but not removed.

Hot Water: Stored water 60°C. Distribution >50°C within 1 minute of running

Healthcare Hot Water: Stored water 60°C. Distribution >50°C within 30 seconds and >55°C within 1 minute of running

Cold Water: Stored water <20°C. Distribution <20°C within 2 minutes of running

Blind Ends and Dead Legs - 1

Blind End/Dead Leg Photograph



Supply to Pressurisation Unit

Is this a Blind End or Dead Leg?

Dead Leg

Location

Boiler Room

Which supply pipework is the dead/blind end on?

MCWS

Diameter

15mm

Length (M)

1.75m

Pipework Material

Copper

What further action is required to manage the risk of Legionella amplification this dead/blind end poses?

Install a double check valve at the point the dead leg branches from a regularly used distribution pipe

Blind Ends and Dead Legs - 2

Blind End/Dead Leg Photograph



Deadleg 1

Is this a Blind End or Dead Leg?

Dead Leg

Location

Calorifier 2

Which supply pipework is the dead/blind end on?

MCWS

Diameter

42mm

Length (M)

0.27

Pipework Material

Copper

What further action is required to manage the risk of Legionella amplification this dead/blind end poses?

Remove from the system entirely

Blind Ends and Dead Legs - 3

Blind End/Dead Leg Photograph



Deadleg 2

Is this a Blind End or Dead Leg?

Dead Leg

Location

Calorifier 2

Which supply pipework is the dead/blind end on?

HWS

Diameter

42mm

Length (M)

0.27

Pipework Material

Copper

What further action is required to manage the risk of Legionella amplification this dead/blind end poses?

Remove from the system entirely

Closed Water Systems

Heating System?	Yes - Central domestic heating system (Cat 3)
Heat Reclaim System?	-
Chilled Water System?	-
Solar Pre-Heat System?	-
Other:	-
Notes and Observations:	-

These system listed above are all closed systems and therefore present no risk under normal operation. Some consideration should be given to the risks associated with all parts of the system under all reasonably foreseeable operating conditions. For example, a heating system may operate above the temperature range at which legionella bacteria can survive and is fully enclosed. However: - the feed and expansion cistern could easily contain warm water, as could any part of the system where there is no recirculation, in each case providing conditions suitable for legionella bacteria to multiply and will be detailed in this assessment if applicable; - maintenance work such as draining water for chemical testing or dosing, or even air venting radiators, could create contaminated aerosols and contractors should be made aware of this and complete a work specific risk assessment and provide appropriate controls before undertaking any work Only once these considerations are taken into account should these systems present a negligible risk.

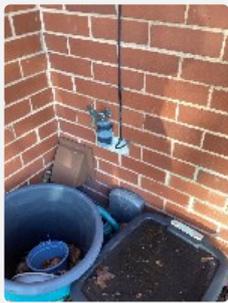
Water Connections to Outside Services - 1

Are there any outside services on site?	Yes
Outlet type?	External Bib tap - Rear of building
Does the outlet cause any waste, misuse, undue consumption or contamination of water supplied?	No
Type of Usage?	Domestic
Is there appropriate backflow protection in place?	Yes
Is there appropriate insulation in place?	Yes
Is any double check valve arrangement inside the thermal envelope of the building?	Yes
Is the outlet used at least weekly?	No, outlet flushed weekly
Have any hoses been disconnected after use? Ensure that ends of the hoses are not allowed to enter any drains:	No
Additional Notes:	-
Outside Connection Photo:	 <p>External Bib tap</p>
Outside Connection General Location:	No Image

Water Connections to Outside Services - 2

Are there any outside services on site?	Yes
Outlet type?	External Bib tap - Bungalow
Does the outlet cause any waste, misuse, undue consumption or contamination of water supplied?	No
Type of Usage?	Domestic
Is there appropriate backflow protection in place?	Yes
Is there appropriate insulation in place?	Yes
Is any double check valve arrangement inside the thermal envelope of the building?	Unable to confirm
Is the outlet used at least weekly?	No, outlet flushed weekly
Have any hoses been disconnected after use? Ensure that ends of the hoses are not allowed to enter any drains:	No
Additional Notes:	-
Outside Connection Photo:	 <p>External Bib tap</p>
Outside Connection General Location:	No Image

Water Connections to Outside Services - 3

Are there any outside services on site?	Yes
Outlet type?	External Bib tap - Front of Building
Does the outlet cause any waste, misuse, undue consumption or contamination of water supplied?	No
Type of Usage?	Domestic
Is there appropriate backflow protection in place?	Yes
Is there appropriate insulation in place?	Yes
Is any double check valve arrangement inside the thermal envelope of the building?	Yes
Is the outlet used at least weekly?	No, outlet flushed weekly
Have any hoses been disconnected after use? Ensure that ends of the hoses are not allowed to enter any drains:	No
Additional Notes:	-
Outside Connection Photo:	 <p>External Bib tap</p>
Outside Connection General Location:	No Image

Notes on Water Connections to Outside Services

1. Hose Unions/Bib Taps in Houses or Gardens or Similar Installations – Fluid Category 3: The minimum level of protection required for a HU tap in a house garden is a Double Check Valve. HU taps incorporating two check valves cartridges (now described as HUK1) are no longer acceptable for new exterior installations. This design is prone to frost damage so the regulations now require a Double Check Valve to be provided upstream of the HU tap inside the thermal envelope of the building (where applicable) and protected from freezing;
2. WRAS categorise all non-domestic hose union taps as fluid category 5: The categorisation of non-domestic hose union taps as a fitting that require fluid 5 protection is a recognition that in some non-domestic situations the fluids at risk of being present will be more serious health hazard. Water suppliers do however adopt a risk-based approach to their enforcement of the Water Supply (Water Fittings) Regulations/Byelaws and where a risk assessment indicates that the risks associated with an individual hose union tap are less than fluid category 5 they will accept alternative approaches.
3. The Regulations/byelaws do not define “commercial” or “domestic”. “Domestic” may refer to the type of premises or the use. The term “house” does include a flat and bungalow. Generally, “domestic” means as used in a house. R15.20 states “house garden” includes recreational areas excluding agricultural and horticultural use. Consequently, most water companies (Check with Guernsey Water) consider a hose union tap in a non-house garden situation to be Fluid Category 3 if a hand held hose is to be used - with self-closing nozzle – for uses similar to those used in a house garden – e.g. above ground watering;
4. Where a hose union tap on an allotment garden is used in accordance with the following conditions, it can be considered as being of no greater risk than the equivalent tap in a domestic garden. That is to say that would be categorised as a fluid category 3 risk. If these conditions are not met or do not apply a risk assessment will be required and may result in a higher level of backflow protection due to the increased risk.
 - a. Hoses will be hand-held in use, with “fail-safe” means of flow shut-off (i.e. self-closing trigger mechanism) or, if connected to irrigation systems, will have fixed sprinkler heads or outlets not less than 150 mm above ground and will not use additives (fertilisers, pesticides).
 - b. Hoses are permitted to be used with hand-held sprays containing readily available domestic fertilisers (but NOT insecticides or herbicides etc.);
 - c. Seep hoses in direct contact or less than 150mm above the soil are considered to be a fluid category four backflow risk and must not be connected to a mains-fed hose union tap equipped only with a double check valve. These may be permitted when used with a type DB pipe interrupter (Refer to G15.23 of the Defra Guidance for further information) or other fluid category 4 protection device.
 - d. Garden chemicals: where the formulation and concentration of chemicals used by allotment holders are the same as those available for purchase and use in domestic gardens.
 - e. The use of animal wastes (farmyard manure etc.) is possibly greater on allotments than in domestic gardens, but these materials are used on soils in domestic gardens and the risks from their presence are similar.
 - f. Presence of drains etc. into which hoses could be immersed is considered to be no more likely than in domestic gardens.
5. Any Hose Unions that are used in a non-domestic setting will typically be deemed a fluid category 5 and require appropriate backflow protection.

Sampling Requirements

Is there a Legionella (LP) sampling regime in place on site?	Yes
Legionella sampling Visit frequency	Monthly
Legionella sampling number per visit	12
Details Of Specific Locations	Post flushing Legionella samples taken from hot and cold outlets in the Communal areas and Guest room
Is there a Total Viable Count (TVC) sampling regime in place on site?	No
TVC sampling Visit frequency	-
TVC sampling number (per visit)	-
Details Of Specific Locations	-
Is there any other form of sampling being carried out on site?	No
Other sampling frequency	-
Other sampling number	-
Details Of Specific Locations	-
Is there a need to implement any additional sampling?	No
Additional sampling frequency	-
Additional sampling numbers	-
Details Of Specific Locations	-
Justification For Proposed Sampling Regime / Amendments	The current sampling program is sufficient for determining the bacterial activity within the water system. The account manger and client should regularly review the program to determine any additional outlets that maybe required for sampling for example; issues raised from non compliances during PPM works or resampling of failed samples.
Have You Detailed This Sampling In The Written Scheme Of Control?	Yes
Reactive sampling specifically for the presence of Legionella bacteria must also be undertaken at any time that the implemented control measures appear to be failing.	

Review of Written Scheme to Control Legionella Risk

Control Type	Frequency / Allocation
All Systems: Risk Assessment or Risk Review and Reassessment (2-yearly or when there is a reason to suspect it is no longer valid.)	
Responsibility Allocation	SMS Environmental Ltd
Current Legionella risk assessment review frequency	2 yearly
Is the current risk assessment review period considered as being adequate for this building/system?	Yes
What is the recommended risk based review frequency (if different from the current review period)?	-
The recommendation is being made to alter the current risk assessment review period due to the following factors	-
Log Book Audit. Complete a check of the log book to ensure that all tasks detailed in the written scheme are being properly completed by competent and trained individual and appropriate records made, either in hard or electronic records.	
Responsibility Allocation	Believe Housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Check the training and competence of all individuals who have responsibility for undertaking tasks and delivering the written scheme.	
Responsibility Allocation	Believe Housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Calorifier: Inspect calorifier internally by removing the inspection hatch or using a borescope and clean by draining the vessel. The frequency of inspection and cleaning should be subject to the findings and increased or decreased based on conditions recorded. (Annually, or as indicated by the rate of fouling)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	Annually
Calorifier: Where there is no inspection hatch, purge any debris in the base of the calorifier to a suitable drain Collect the initial flush from the base of hot water heaters to inspect clarity, quantity of debris, and temperature (Annually, but may be increased as indicated by the risk assessment or result of inspection findings)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Calorifier: Check calorifier flow temperatures (thermostat settings should modulate as close to 60 °C as practicable without going below 60 °C) Check calorifier return temperatures (not below 50 °C). (Monthly)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Monthly

Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
For non-circulating systems: take temperatures at sentinel points (nearest outlet, furthest outlet and long branches to outlets) to confirm they are at a minimum of 50 °C within one minute (55 °C in healthcare premises) Monthly	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Hot water services: For circulating systems: take temperatures at return legs of principal loops (sentinel points) to confirm they are at a minimum of 50 °C. Temperature measurements may be taken on the surface of metallic pipework (Monthly)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Hot water services: All HWS systems: take temperatures at a representative selection of other points (intermediate outlets of single pipe systems and tertiary loops in circulating systems) to confirm they are at a minimum of 50 °C to create a temperature profile of the whole system over a defined time period (Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
POU water heaters (no greater than 15 litres): Check water temperatures to confirm the heater operates at 50–60 °C or check the installation has a high turnover (Monthly–six monthly, or as indicated by the risk assessment)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Combination water heaters: Inspect the integral cold-water header tanks as part of the cold-water storage tank inspection regime, clean and disinfect as necessary. If evidence shows that the unit regularly overflows hot water into the integral cold-water header tank, instigate a temperature monitoring regime to determine the frequency and take precautionary measures as determined by the findings of this monitoring regime. (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Combination water heaters: Check water temperatures at an outlet to confirm the heater operates at 50–60 °C. (Monthly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Inspect cold water storage tanks and carry out remedial work, including disinfection, where necessary (Annually)	

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Check the tank water temperature remote from the ball valve and the incoming mains temperature. Record the maximum temperatures of the stored and supply water recorded by fixed maximum/minimum thermometers where fitted. (Annually - Summer) or as indicated by the temperature profiling)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Check temperatures at sentinel taps (typically those nearest to and furthest from the cold tank, but may also include other key locations on long branches to zones or floor levels). These outlets should be below 20 °C within two minutes of running the cold tap. To identify any local heat gain, which might not be apparent after one minute, observe the thermometer reading during flushing (Monthly)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Take temperatures at a representative selection of other points to confirm they are below 20 °C to create a temperature profile of the whole system over a defined time period. Peak temperatures or any temperatures that are slow to fall should be an indicator of a localised problem. (Representative selection of other sentinel outlets considered on a rotational basis to ensure the whole system is reaching satisfactory temperatures for legionella control)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Cold water services: Check thermal insulation to ensure it is intact and consider weatherproofing where components are exposed to the outdoor environment (Annually)	
Responsibility Allocation	HSL Compliance LTD / Believe Housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
All Domestic hot and cold water services: Check all hot and cold water outlets for scale and biofilm build-up and if found to be contaminated clean, descale and disinfect.	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	Quarterly
All Domestic hot and cold water services: If flow straighteners or tap inserts are fitted to any water outlet, these should be removed and cleaned descaled and disinfected or replaced as necessary.	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Unable To Confirm

Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	Quarterly
Showers and spray taps: Dismantle, clean and descale removable parts, heads, inserts and hoses where fitted (Quarterly or as indicated by the rate of fouling or other risk factors.)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Quarterly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Thermometer: Uniquely identify instrument and calibration check against ice-point and boiling point standards in line with a written procedure (6-monthly)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	6 Monthly
POU filters: Record the service start date and lifespan or end date and replace filters as recommended by the manufacturer (0.2 µm membrane POU filters should be used primarily as a temporary control measure while a permanent safe engineering solution is developed, although long-term use of such filters may be needed in some healthcare situations). (According to manufacturer's guidelines)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Quarterly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Chilled Water Dispenser: Change Carbon Filter and disinfect entire unit including supply pipework. (6-Monthly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Base Exchange Softener: Visually check the salt levels and top up salt, if required. Undertake a hardness check to confirm operation of the softener (Weekly)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Base Exchange Softener: Service and Disinfect (Annually)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Infrequently used equipment within a water system (i.e not used for a period equal to or greater than seven days) should be included in the flushing regime. Flush the outlets until the temperature at the outlet stabilises and is comparable to supply water and purge to drain Regularly use the outlets to minimise the risk from microbial growth in the peripheral parts of the water system, sustain and log this procedure once started For high-risk populations, e.g. healthcare and care homes, more frequent flushing may be required as indicated by the risk assessment.	

Responsibility Allocation	Contego
Current Frequency	Weekly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
TMVs: Risk assess whether the TMV fitting is required, and if not, remove. Where needed, inspect, clean, descale and disinfect any strainers or filters associated with TMVs To maintain protection against scald risk, TMVs require regular routine maintenance carried out by competent persons in accordance with the manufacturer's instructions. (Annually)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Expansion vessels: Where practical, flush through and purge to drain. Bladders should be changed according to the manufacturer's guidelines or as indicated by the risk assessment (6-Monthly)	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Unable To Confirm
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	6 Monthly
Water Connections to Outside Services: Checking the existence of all water connections to outside services; kitchens, fire hydrants and chemical wash units. Any insulation should be checked to ensure that it remains intact. Any water outlets that are no longer used should be removed (Annually)	
Responsibility Allocation	HSL Compliance LTD / Believe Housing
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Legionella Sampling: Sample from systems identified in the risk assessment. (As detailed in the risk assessment)	
Responsibility Allocation	HSL Compliance LTD
Current frequency	Monthly
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
TVC: Sample from system identified in the risk assessment. (As detailed in the risk assessment)	
Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Closed Water Systems: When testing, maintaining or operating low risk systems, such as fire systems, heating and chilled water systems, etc. Complete a task specific risk assessment and instigate a safe system of work that prevents the generation of a breathable aerosol that will expose operatives to viable legionella bacteria	
Responsibility Allocation	HSL Compliance LTD
Current Frequency	Annually
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Check the system operation and chemical stocks in the reservoir. (Weekly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Test the treated water for both chlorine dioxide and total oxidant/chlorite at an outlet close to the point of injection to verify the dosage rate and conversion yield. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Measure the concentration of chlorine dioxide at sentinel taps – the concentration should be at least 0.1 mg/l; and adjust the chlorine dioxide dosage to establish the required residual at the sentinel sample points. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Chlorine Dioxide Dosing – Test the chlorine dioxide and total oxidant/chlorite concentration at a representative selection of outlets throughout the distribution system - the concentration should be at least 0.1 mg/l chlorine dioxide. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check rate and release of copper and silver ions in the water supply. (Weekly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check copper and silver ion concentrations at sentinel outlets. (Monthly)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check the measurement of copper and silver ion concentrations at representative taps selected on a rotational basis each year. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-

Copper & Silver Ionisation – Check the condition and cleanliness of the electrodes and the pH of the water supply. (Annually)

Responsibility Allocation	-
Current Frequency	-
Recommended frequency (where the action needs to be newly implemented, or where the current frequency has been appraised as insufficient)	-
Notes or Observations	The assessor has reviewed the records on the Believe Housing database and Socius website for the legionella control completed by HSL Compliance LTD, some of the records appear to be sporadic, inconsistent and lacking asset detail.
BS8580-1:2019 9.3 Control Measures Page 17 states: The Risk assessment should not involve the preparation of the written scheme of control but rather provide information that is critical to its preparation, improvement and review. Note 2 Ensuring that there is a written scheme of control is a legal requirement of the duty holder although they might instruct the risk assessor to advise or prepare the scheme of control on their behalf as a separate commission.	

Schematic Drawing

Please detail as much information as possible: Sentinel Outlets, Primary and Secondary Flow and Return Loops, Materials, Size, Location, Valves etc

This is a new site and requires a new schematic

Yes

Changes to existing schematic (sent as a separate AutoCad file)

-

No Changes - Insert Job No. of last schematic

-

ENSURE ALL SENTINEL OUTLETS ARE MARKED ON THE SCHEMATIC

Images



Example of an External bib tap



Typical electric shower



Washing machine



Laundry room washing machines



Example of a POU filter fitted to shower



Isolated Calorifier (Cal 2)



Pressurisation Unit



Typical bathroom Wash hand basin



Typical bath



Quick fill link attached



Example of a Flat bathroom TMV



Typical TMV fed mixer shower



Bibliography

1. Approved Documents for Building Regulations in England and Wales: www.planningportal.gov.uk/buildingregulations/ Approved Documents for Building Regulations in Scotland: www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards
2. Water Supply (Water Fitting) Regulations 1999 SI 1148/1999 The Stationery
3. BS 3198: 1981 Specification for copper hot water storage combination units for domestic purposes British Standards Institution
4. BS 6920-2-1:2000+A3:2008 Suitability of non-metallic products for use in contact with water intended for human consumption with regard to their effect on the quality of the water. Methods of test British Standards Institution
5. BS 7592:2008 Sampling for Legionella organisms in water systems. Code of Practice British Standards Institution
6. BS 8558:2015 Guide to the design, installation, testing and maintenance of services supplying water for domestic use within buildings and their curtilages British Standards Institution
7. BS 8580-1:2019 Water quality. Risk assessments for Legionella control. Code of practice British Standards Institution
8. BS EN 806 (Parts 1–5) Specifications for installations inside buildings conveying water for human consumption British Standards Institution
9. CIBSE (2014) Guide G: Public health and plumbing engineering www.cibse.org
10. Consulting workers on health and safety. Safety Representatives and Safety Committees Regulations 1977 (as amended) and Health and Safety (Consultation with Employees) Regulations 1996 (as amended). Approved Codes of Practice and guidance L146 (Second edition) HSE Books 2012 ISBN 978 0 7176 6461 0 www.hse.gov.uk/pubns/books/l146.htm
11. Controlling scalding risks from bathing and showering United Kingdom Homecare Association (UKHCA) www.ukhca.co.uk
12. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part A: Design, installation and commissioning <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
13. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part B: Operational management <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
14. DoH (2016) Health Technical Memorandum 04-01: Safe water in healthcare premises Part C: Pseudomonas aeruginosa – advice for augmented care units <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
15. DoH (2017) Health Technical Memorandum 04-01: Supplement. Performance specification D 08: thermostatic mixing valves (healthcare premises) <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
16. Guidance on the Control and Prevention of Legionnaires' Disease in England Health Protection Agency 2010 www.hpa.org.uk
17. Guide to risk assessment for water services The Water Management Society www.wmsoc.org.uk/publication.html
18. Guidelines on Management of Legionella Incidents, Outbreaks and Clusters in the Community Health Protection Agency Scotland 2009 www.hpa.scot.nhs.uk
19. Health and Safety at Work etc. Act 1974 (c 37) The Stationery Office 1974 ISBN 978 0 10 543774 1
20. Health and safety in care homes HSG220 HSE Books 2001 ISBN 978 0 7176 2082 1 www.hse.gov.uk/pubns/books/hsg220.htm
21. HSE (2012) Hazardous substances at work: A brief guide to COSHH Leaflet INDG136(rev5) HSE Books www.hse.gov.uk/pubns/indg136.htm
22. HSE (2013) Legionnaires' disease: Technical guidance Part 3: The control of legionella bacteria in other risk systems <http://www.hse.gov.uk/pubns/priced/hsg274part3.pdf>
23. HSE (2013) Legionnaires' disease: Technical guidance Part1: The control of legionella bacteria in evaporative cooling systems <http://www.hse.gov.uk/pubns/priced/hsg274part1.pdf>
24. HSE (2013) Legionnaires' disease: The control of legionella bacteria in water systems. Approved Code of Practice L8 (Fourth edition) HSE Books 2013 www.hse.gov.uk/pubns/books/l8.htm
25. HSE (2014) Legionnaires' disease Part 2: The control of legionella bacteria in hot and cold water systems <http://www.hse.gov.uk/pubns/priced/hsg274part2.pdf>
26. HSE Guernsey (2013) The Control of Legionella Bacteria in Water Systems in Guernsey
27. Legionella Control Association (2017) The Control of Legionella A Recommended Code of Conduct for Service Providers www.legionellacontrol.org.uk.
28. Managing health and safety in construction. Construction (Design and Management) Regulations 2007. Approved Code of Practice L144 HSE Books 2007 ISBN 978 0 7176 6223 4 www.hse.gov.uk/pubns/books/l144.htm
29. Reporting accidents and incidents at work: A brief guide to the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) Leaflet INDG453(rev1) HSE Books 2013 www.hse.gov.uk/pubns/indg453.htm
30. Scottish Health Technical Memorandum 04-01 Health Facilities Scotland www.hfs.scot.nhs.uk/publications-1/engineering/shtm-04-01/
31. The Health Protection (Notification) Regulations 2010 SI 659/2010 The Stationery Office
32. The Notification of Cooling Towers and Evaporative Condensers Regulations 1992 SI 1992/2225 The Stationery Office
33. The Private Water Supplies (Scotland) Regulations 2006 SSI 209/2006 The Stationery Office
34. The Private Water Supplies (Wales) Regulations 2010 Welsh SI 66/2010 The Stationery Office
35. The Private Water Supplies Regulations 2009 SI 3101/2009 The Stationery Office
36. The Public Health (Notification of Infectious Diseases) (Scotland) Regulations 1988 SSI1550/1988 The Stationery Office

37. The Water Supply (Water Quality) (Scotland) Regulations 2001 SSI 207/2001 The Stationery Office
 38. The Water Supply (Water Quality) (Scotland) Regulations 2010 SSI 95/2010 The Stationery Office
 39. The Water Supply (Water Quality) Regulations 2016 SSI 2016 No. 614 The Stationery Office
 40. UK Gov (2017) Safe water in healthcare premises HTM 04-01 Parts A, B, C & D08 Available from <https://www.gov.uk/government/publications/hot-and-cold-water-supply-storage-and-distribution-systems-for-healthcare-premises>
 41. UKAS (2017) Accreditation of Bodies Undertaking Legionella Risk Assessment Activities RG9 3rd Ed
 42. Water (Scotland) Act 1980 The Stationery Office 1980 ISBN 978 0 10 544580 7
 43. Water Byelaws 2004 Scottish Water www.scottishwater.co.uk
 44. Water Fittings and Materials Directory Water Regulations Advisory Scheme www.wras.co.uk/Directory
 45. Water Industry Act 1991 The Stationery Office 1991 ISBN 978 0 10 545691 9
-