

Legionella Written Scheme Park Avenue Close, Crook, County Durham November 2023

Version	Author	Date	Comments/amendments
1.0	E Jorgenson	02/06/2020	N/A
2.0	E Jorgenson	26/01/2021	Update management structure, and sections 7-
	-		13
3.0	E Jorgenson	04/02/2022	Updated following new risk assessment
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5.0	A Graham	05/10/2023	Review – until new LRA completed
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7.0	A Graham	16/04/2024	Update following change of contractor



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1. Purpose

The purpose of this document is to detail the site-specific written scheme for Park Avenue Close.

2. Scope

This written scheme covers the domestic water system and the rainwater harvesting system within the property. There is no risk linked with any close systems in the property and therefore this has not been included in the scope.

3. Risk Assessment

All risk assessments for believe housing are completed by a Legionella Control Association registered company who have been selected through a full and proper procurement exercise.

This risk assessment was carried out on the 10th November 2023. The site will be audited on an annual basis to assess the validity of the assessment and when it is considered no longer valid a new risk assessment will be arranged. The assessment may be considered invalid when;

- a) There are changes to the water system or its use;
- b) Changes to the use of the building in which the water system is installed
- c) The availability of checks indicating that control measures are no longer effective
- d) Changes in key personnel
- e) A case of legionnaires disease/legionellosis associated with the system.

Following the risk assessment, an action plan has been formulated and details of this can be found located in on the following file path

https://cdhg.sharepoint.com/:b:/s/complianceandfacilities/EfkVEFoTSaxLucil2O5FsgsBP_zImTAn Wh6_aGeeUXwfIQ?e=dCVjnX

This shows all the recommendations made in the risk assessment and the actions that believe housing are taking.



4. Management Structure

The management structure for the organisation is as follows.

Statutory Duty Holder			
Position	Chief Executive		
Address	believe housing, Coast House, Spectrum 4, Spectrum Business Park,		
	Seaham		
Postcode	SR7 7TT		
	Naminatad Daananaikla Danaan		
	Nominated Responsible Person		
Position	Compliance Manager		
Address	believe housing, Coast House, Spectrum 4, Spectrum Business Park, Seaham		
Postcode	SR7 7TT		
Training	City and Guilds Qualificatons "management of legionella bacteria in hot and cold water systems" and "hazard identification and risk assessment of water systems within buildings" and regular attendance of the north east councils legionella focus group (NECLFG).		
	Nominated Responsible Person (Deputy)		
Position	Compliance Officer (Water)		
Address	believe housing, Coast House, Spectrum 4, Spectrum Business Park,		
Postcode			
Phone	07901510712		
e-mail	Andrew graham@believebousing co.uk		
Training	City and Guilds Qualificators "management of legionella bacteria in		
Training	hot and cold water systems" and regular attendance of the north east councils legionella focus group (NECLEG).		
	Facilities Officer		
Address	Pam Wilson		
Position	Facilities Coordinator		
Phone	0191 814 2857		
e-mail	pamela.wilson@believehousing.co.uk		
Training	In house e-learning package		
	Risk Assessment Contractor – SMS Environmental		
Address	Strathclyde Business Park, Suite1/2 Avondale House, Bellshill ML4 3NJ		
Postcode	ML4 3NJ		
Contact	Jemma Tennant		
Phone	07521390672		
e-mail	j.tennant@sms-environmental.co.uk		



	Water Monitoring Contractor – Hsl Compliance Ltd		
Address	Suit 7 (Phase 2), The Grainger Suite, Dobson House, Regent Centre,		
	Newcastle upon Tyne		
Postcode	NE3 3PF		
Contact	David Armstrong & Phil Lynas		
Phone	07823349745 & 07909706236		
e-mail	David.Armstrong@hslcompliance.com Phil.Lynas@hslcompliance.com		
Li	Little used flushing – Durham Council Cleaning Section		
Address	Durham County Council, St. John's Road, Meadowfield, Durham DH7		
	8XQ		
Postcode	DH7 8XQ		
Contact	Tanya Wood / Sonia Parkin		
Phone	03000 269358		
e-mail	tanya.wood@durham.gov.uk / sonia.parkin@durham.gov.uk		
Training	Ν/Δ		

Full details regarding the responsibilities of the Duty Holder, Responsible Person and Deputy Responsible Person can be found in the legionella policy.

Full details of the responsibilities of the contractors employed by believe housing, to complete the legionella programs can be found detailed in the specification of the tender and water hygiene procedure.



4. Asset Register

	Asset	Location (detail any specific	Serving
	Number	access requirements)	_
Cold Water	CWST1	Second Floor Storeroom 4 (Rain	2 x Public WC's only
Storage Tanks		Water Harvesting System)	-
Water Heaters	CAL1	External Boiler Room	DHWS to site (linked to CAL02)
	CAL2	External Boiler Room	DHWS to site (linked to CAL01)
Showers	SH1	Flat 26 Shower Room	1 x SHR
	SH2	Flat 11 Shower Room	1 x SHR
	SH3	Flat 25 Shower Room	1 x SHR
	SH4	Flat 12 Shower Room	1 x SHR
	SH5	Flat 24 Shower Room	1 x SHR
	SH6	Flat 14 Shower Room	1 x SHR
	SH7	Flat 15 Shower Room	1 x SHR
	SH8	Flat 16 Shower Room	1 x SHR
	SH9	Flat 17 Shower Room	1 x SHR
	SH10	Flat 18 Shower Room	1 x SHR
	SH11	Flat 19 Shower Room	1 x SHR
	SH12	Flat 20 Shower Room	1 x SHR
	SH13	Flat 21 Shower Room	1 x SHR
	SH14	Flat 22 Shower Room	1 x SHR
	SH15	Flat 23 Shower Room	1 x SHR
	SH16	Flat 40 Shower Room	1 x SHR
	SH17	Flat 29 Shower Room	1 x SHR
	SH18	Flat 41 Shower Room	1 x SHR
	SH19	Flat 28 Shower Room	1 x SHR
	SH20	Flat 42 Shower Room	1 x SHR
	SH21	Flat 27 Shower Room	1 x SHR
	SH22	Flat 43 Shower Room	1 x SHR
	SH23	Flat 44 Shower Room	1 x SHR
	SH24	Flat 39 Shower Room	1 x SHR
	SH25	Flat 38 Shower Room	1 x SHR
	SH26	Flat 37 Shower Room	1 x SHR
	SH27	Flat 36 Shower Room	1 x SHR
	SH28	Flat 35 Shower Room	1 x SHR
	SH29	Flat 31 Shower Room	1 x SHR
	SH30	Flat 30 Shower Room	1 x SHR
	SH31	Flat 32 Shower Room	1 x SHR
	SH32	Flat 33 Shower Room	1 x SHR
	SH33	Flat 34 Shower Room	1 x SHR
	SH34	Flat 47 Shower Room	1 x SHR
	SH35	Flat 53 Shower Room	1 x SHR
	SH36	Flat 54 Shower Room	1 x SHR
	SH37	Flat 46 Shower Room	1 x SHR
	SH38	Flat 55 Shower Room	1 x SHR



	SH39	Flat 45 Shower Room	1 x SHR
	SH40	Flat 56 Shower Room	1 x SHR
	SH41	Flat 57 Shower Room	1 x SHR
	SH42	Flat 52 Shower Room	1 x SHR
	SH43	Assisted Bathroom	1 x SHR
	SH44	Flat 48 Shower Room	1 x SHR
	SH45	Flat 51 Shower Room	1 x SHR
	SH46	Flat 49 Shower Room	1 x SHR
	SH47	Flat 50 Shower Room	1 x SHR
TMV's	TMV1	Flat 26 Shower Room	1 x WHB
	TMV2	Flat 11 Shower Room	1 x WHB
	TMV3	Flat 25 Shower Room	1 x WHB
	TMV4	Flat 12 Shower Room	1 x WHB
	TMV5	Flat 24 Shower Room	1 x WHB
	TMV6	Flat 14 Shower Room	1 x WHB
	TMV7	Flat 15 Shower Room	1 x WHB
	TMV8	Flat 16 Shower Room	1 x WHB
	TMV9	Flat 17 Shower Room	1 x WHB
	TMV10	Flat 18 Shower Room	1 x WHB
	TMV11	Flat 19 Shower Room	1 x WHB
	TMV12	Flat 20 Shower Room	1 x WHB
	TMV13	Flat 21 Shower Room	1 x WHB
	TMV14	Flat 22 Shower Room	1 x WHB
	TMV15	Flat 23 Shower Room	1 x WHB
	TMV16	Flat 40 Shower Room	1 x WHB
	TMV17	Flat 29 Shower Room	1 x WHB
	TMV18	Flat 41 Shower Room	1 x WHB
	TMV19	Flat 28 Shower Room	1 x WHB
	TMV20	Flat 42 Shower Room	1 x WHB
	TMV21	Flat 27 Shower Room	1 x WHB
	TMV22	Flat 43 Shower Room	1 x WHB
	TMV23	Flat 44 Shower Room	1 x WHB
	TMV24	Flat 39 Shower Room	1 x WHB
	TMV25	Flat 38 Shower Room	1 x WHB
	TMV26	Flat 37 Shower Room	1 x WHB
	IMV27	Flat 36 Shower Room	1 x WHB
	TMV28	Flat 35 Shower Room	1 x WHB
	TMV29	Flat 31 Shower Room	1 x WHB
		Flat 30 Shower Room	1 x WHB
	TMV31	Flat 32 Shower Room	1 x WHB
	TMV32	Flat 33 Shower Room	1 x WHB
		Flat 34 Shower Room	
	TMV34	Flat 47 Shower Room	
	TMV35	Flat 53 Shower Room	
		Flat 54 Shower Room	
		Flat 46 Shower Room	
	TMV/20	Flat 55 Shower Room	
		Flat 45 Shower Room	
	11/1/40	Flat 50 Shower Room	I X WHB



Flat 57 Shower Room

1 x WHB

TMV42	Flat 52 Shower Room	1 x WHB
TMV43	Assisted Bathroom	1 x WHB
TMV44	Assisted Bathroom	1 x BTH
TMV45	Flat 48 Shower Room	1 x WHB
TMV46	Flat 51 Shower Room	1 x WHB
TMV47	Flat 49 Shower Room	1 x WHB
TMV48	Flat 50 Shower Room	1 x WHB
TMV49	LHS Accessible WC	1 x WHB (TMT)
TMV50	RHS Accessible WC	1 x WHB (TMT)
TMV51	Flat 11 Shower Room	1 x SHR
TMV52	Flat 12 Shower Room	1 x SHR
TMV53	Flat 14 Shower Room	1 x SHR
TMV54	Flat 15 Shower Room	1 x SHR
TMV55	Flat 16 Shower Room	1 x SHR
TMV56	Flat 17 Shower Room	1 x SHR
TMV57	Flat 18 Shower Room	1 x SHR
TMV58	Flat 19 Shower Room	1 x SHR
TMV59	Flat 20 Shower Room	1 x SHR
TMV60	Flat 21 Shower Room	1 x SHR
TMV61	Flat 22 Shower Room	1 x SHR
TMV62	Flat 23 Shower Room	1 x SHR
TMV63	Flat 24 Shower Room	1 x SHR
TMV64	Flat 25 Shower Room	1 x SHR
TMV65	Flat 26 Shower Room	1 x SHR
TMV66	Flat 27 Shower Room	1 x SHR
TMV67	Flat 28 Shower Room	1 x SHR
TMV68	Flat 29 Shower Room	1 x SHR
TMV69	Flat 30 Shower Room	1 x SHR
TMV70	Flat 31 Shower Room	1 x SHR
TMV71	Flat 32 Shower Room	1 x SHR
TMV72	Flat 33 Shower Room	1 x SHR
TMV73	Flat 34 Shower Room	1 x SHR
IMV74	Flat 35 Shower Room	1 x SHR
TMV75	Flat 36 Shower Room	1 x SHR
IMV76	Flat 37 Shower Room	1 x SHR
	Flat 38 Shower Room	
1MV78	Flat 39 Shower Room	1 x SHR
TMV79	Flat 40 Shower Room	1 x SHR
	Flat 41 Shower Room	1 x SHR
TMV81	Flat 42 Shower Room	1 x SHR
TMV82	Flat 43 Shower Room	
	Flat 44 Shower Room	
1 IVI V 84	Flat 45 Shower Room	
1 IVI V 85	Flat 46 Snower Room	
	Flat 47 Snower Room	
	Flat 48 Snower Room	
	Flat 49 Shower Room	
	Flat 50 Shower Room	
11/1/90	Fial ST Shower Room	



Flat 52 Shower Room

1 x SHR

	OPV2	Boiler Room	CAL2 (expansion vessel)
Other Systems	OPV1	Boiler Room	CAL1 (expansion vessel)
	TMV96	Flat 57 Shower Room	1 x SHR
	TMV95	Flat 56 Shower Room	1 x SHR
	TMV94	Flat 55 Shower Room	1 x SHR
	TMV93	Flat 54 Shower Room	1 x SHR
	TMV92	Flat 53 Shower Room	1 x SHR

N.B. the showers are not marked as TMVs in the risk assessment however they do have thermostatic control and will therefore be added to the written scheme as TMV's



Park Avenue Housing Plus Unit is a purpose-built sheltered housing facility comprising of 46 selfcontained flats over three floors. The building has a lounge and day room with kitchen facility with two communal WC's located on the ground floor. There is also a cleaners sink on the ground floor and an assisted bathroom on the 2nd floor.

Each flat has a living space with a kitchen sink and a shower room with WC, handbasin and shower.

The hot water for the site is fed from two mains fed water heaters located in the external boiler house. The cold water to most of the site is via mains however the WC's in the public toilets are fed via the rainwater harvesting tank located on the 1st floor.

5.2 Building use and access

Residents are aged between 55 and 100 with varied health concerns which would make them vulnerable to legionellosis.

Access to site is via fob, and a fob for visitors is available in the external key safe near the front door (code 1957A). The premises file for the site is available in the office and which is accessible via a key safe on the wall (code 3478)

5.3 Monitoring program

The risk assessment has shown that there is a reasonable foreseeable risk of legionella contamination in this building. Therefore, a scheme of control has been formulated and implemented at this site. The current program in place on site is a physical treatment program using temperature rather than biocides as a form of control. The specific program for this site is detailed as follows;

Weekly tasks

Currently it is not possible to confirm that there is constant water use in the communal areas of the building. Therefore all communal outlets are flushed for five minutes weekly by the cleaning providers Durham County Council, and this action is recorded in the premises file in the site office. The following outlets are flushed weekly.

- Ground Floor WC's (x2)
- Communal Kitchen
- Cleaners Cupboard
- Assisted Bathroom
- Outside Taps (x2)

In addition to this, on a weekly basis, the void flats in the property are forwarded to DCC to add to their flushing programme. Where these are added all outlets are flushed weekly including the kitchen, bathroom basin and any baths/showers.

Monthly tasks

hsl will visit the site once every month and monitor hot and cold water temperatures.

Remote monitoring has been added to record the flow and return temperature of the two calorifiers and hot and cold water temperatures in the following locations.



Location	Floor	Item	Water Source
Communa Kitchen	Floor	Sink	CAL1&2 and MWS01
Flat 32 Kitchen	1 st Floor Mezzanine	Sink	CAL1&2 and MWS01
Flat 50 Kitchen	2 nd Floor	Sink	CAL1&2 and MWS01
Flat 52 Kitchen	2 nd Floor	Sink	CAL1&2 and MWS01

Remote monitoring outputs are collated into a report and sent to the Compliance team weekly to monitor and take any actions necessary.

Manual monitoring will be taken monthly from the from the flow and return of the heaters located in the boiler house (CAL01&02)

Hot and cold-water temperatures will be taken from sentinels located in

Location	Floor	Item	Water Source
Sluice Room	Ground Floor	Sink	CAL1&2 and MWS01
Communal Kitchen	Ground Floor	Sink	CAL1&2 and MWS01
Assisted Bathroom	2 nd Floor	WHB	CAL1&2 and MWS01

Due to the way the property is plumbed every flat on the 1st floor mezzanine and the 2nd floor is a sentinel outlet. Each of these will not be visited monthly to record the temperatures of the water due to difficulties accessing individual flats monthly. However, each flat is accessed quarterly to complete the shower clean and at this time the hot and cold temperatures in the recorded as part of the manual monitoring.

The temperature from every outlet will be taken at least once annually. If an outlet is controlled by a TMV the temperature of the water entering the valve will be recorded.

All hot water from water heaters must be stored at above 60°C and supplied to hot outlets or thermostatic mixing valves at above 50°C within 1 minute. All cold water must be stored at below 20°C and supplied to cold outlets or thermostatic mixing valves at below 20°C within 2 minutes.

Legionella samples will be collected on monthly basis, please refer to section 8 for further details.

Quarterly

The 47 showers located in each of the flats and the assisted bathroom will be cleaned and disinfected quarterly in line with the method statements that hsl have submitted and in accordance with the ACoP L8 and HSG274 pt2.

The two expansion vessels in the boiler room will be flushed through on a quarterly basis in line with the risk assessments and method statements that hsl have submitted and in accordance with the ACoP L8 and HSG274 pt2.

The drain valve on the heater located in the external boiler house will be opened on an annual basis to purge all accumulated sludge from the vessel. If the drain water shows a high accumulation of dirt in the vessel a clean and disinfection will be carried out in line with the method statements that hsl have submitted and in accordance with the ACoP L8 (2014), and HSG 274 pt2.



On a six-monthly basis the tank in storeroom 4 (1st Floor) will be inspected and if it is deemed necessary potable and legionella samples will be taken. The results of this will be compared with tables 2-5 in BS8515 and if required the system will be shut down and a clean and disinfection shall be carried out in line with the method statements that hsl have submitted and in accordance with the ACoP L8 (2014), and HSG 274 pt2.

All 96 TMV's on site will be subject to failsafe testing every six-months in accordance with the method statements submitted by hsl. If the valve does not pass the failsafe test it will be fully serviced. If the valve still does no pass its failsafe test it will be replaced.

Annually

The cold water storage tank located in the 1st Floor Store will be fully inspected annually. If the inspection deems it necessary, a clean and disinfection of the tank and down services will be arranged. This clean and disinfection will be carried out in line with the method statements that hsl have submitted and in accordance with the ACoP L8 (2014), and HSG 274 pt2.

All 96 TMV's on site will be subject to a full service on an annual basis in accordance with the method statements submitted by hsl. If the valve does not pass its failsafe test following the full service, it will be replaced.

7 Record Keeping

All records of site visits and little used flushing are kept in the site premises file with the risk assessment and this written scheme.



All other monitoring records are held on the web-based portal Socius which can be accessed by using the following and indetails.

Username: BelieveHousing@socius.com

Password: Thursday16

All records for legionella control will be kept for a minimum of 5 years as per the retention schedule detailed in the Approved Code of Practice L8.

8 Microbiological testing

Due to the age and potential vulnerability of the occupants microbiological testing is completed monthly at all sentinel's outlets and any other outlets identified as a cause for concern (e.g. little used, poor temperatures, poor flow etc). All samples taken monthly will be pre flush. If these samples results show levels above 100cfu/L or the correct temperatures are no being achieved (as detailed in section 5.3) the sample frequency will be immediately increased to weekly whilst the underlying issue is resolved. Following the resolution of the situation sampling frequency will be slowly reduced to monthly again.

All sampling will be completed in accordance with BS7592 "sampling for legionella organisms in water and related materials". All samples will be set for analysis at a UKAS accredited laboratory with current ISO standard methods of detection and enumeration of legionella included in the scope of the accreditations. The laboratories used also take part in external QA proficiency schemes to provide extra assurance.

9 Remedial Actions

On a regular basis, the Compliance Officer (Water), will check monitoring results on the web-based portal via exception report. All non-compliant results will subject to a desk top investigation to ascertain the extent and consistency of the issue. Where temperatures are consistently unable to achieve the required standards, or the monitoring raises other potential issues the Compliance Officer will raise relevant orders with Internal Repairs or external partners dependant of the works required. The Compliance Officer will advise on time scales for action depending on the risk the issue poses, which will be added to the ticket raised on QL. Where necessary legionella sampling may be requested on a weekly basis until the issue is resolved (see section 8).

Where issues with stagnation or lack of flushing are highlighted, due to a change of building use, Durham County Council will be advised so the little used flushing program can be extended or started to ensure the water turn over in the building is adequate.

10 Incident Plan

Where contamination is identified in water systems the following action will be taken at the following thresholds.



Legionella bacteria (cfu/l)	believe housing's actions
orashg	In the sheltered housing schemes only; The primary concern is protecting susceptible residents and therefore if any legionella is detected an investigation will be carried out and the system resampled
>100 and up to 1000	 Either; If the minority of samples are positive, the system will be resampled. If similar results are detected again, the control measures and risk assessment will be reviewed, and any remedial works identified and completed or; If the majority of the samples taken are positive, the systems may be colonised at a low level. The control measures and risk assessment will be reviewed, and any remedial works identified and completed or; the systems may be colonised at a low level. The control measures and risk assessment will be reviewed, and any remedial works identified and completed. A clean and disinfection of the system will be considered however the requirement for this will be decided on a case by case basis, considering all relevant factors.
	In both cases the system will be continually resamples until assurance is given that the system is back under control.
>1000	The control measures and risk assessment will be reviewed, and any remedial works identified and completed. A clean and disinfection of the system will also be considered. The system will be continually resampled until assurance is given that the system is back under control.

Where the thresholds above are met the Compliance Team will coordinate the organisations response to the incident. Where input is required from other areas of the organisation groups will be set up to coordinate the response, this may include but not be limited to the Compliance Manager, Assistant Director for Strategic Assets, Major Works Manager, Repairs and Maintenance Manager (Repairs), Facilities Coordinator, Health and Safety Officer, Neighbourhoods Team Leader and any third party contractors involved in the maintenance of the water system in the affected building. An actions log will be started to document believe housings response to the contamination. This will be shared with the Compliance Manager and all other relevant parties as necessary.

Any incidents of contamination will be reported in the weekly compliance meeting and documented accordingly.

During this time the system will be sampled weekly. Further control measures may be introduced, such as point of use filtration and chemical dosing, to ensure the safety of any users or occupants. In some cases, buildings may have to be temporarily closed for works to be completed.

When works are complete the Compliance Team will continue to sample the system, reducing the frequency gradually until it is assured that control has been regained.



11.1 Temporary lack of use

Where the water usage in this property is temporarily reduced little used flushing will be expanded to include those areas which are no longer used. This flushing will be conducted weekly by Durham Council and a record of this will be made and placed in the legionella section of the premise's logbook.

Where flats become void, these will be accessed, and flushed weekly by Durham Council attending the HPU, at the same time as the communal areas in the property. Where believe become aware that flats are still tenanted however are unoccupied, the Compliance Team will attempt to contact the tenant. Firstly, the tenant or tenant's representative will be asked to attend the property weekly to flush all outlets. If they are not able to or it becomes apparent, they are not, believe will offer to complete this on their behalf as part of the property's weekly checks. Where tenants are not willing to cooperate, this will be escalated to Neighbourhoods and Safer Neighbourhoods for assistance.

Where the entire property is out of use, the water system will be kept live and managed using hygiene flushing a least once per week at all outlets for a minimum of five minutes.

11.2 Recommissioning

Where hygiene flushing can't be completed, or the water system has had to be drained the system will be fully recommissioned. Where the property has been drained down the system will be refilled, and then a cleansing flush completed before a clean and disinfection is carried out in accordance with method statements that hsl have submitted and in accordance with the ACoP L8 (2014), and HSG 274 pt2. Four days after the clean and disinfection is completed samples will be taken from the properties sentinel outlets to tested for coliforms, E. coli, 37 and 22C TVC's and Legionella. Hygiene flushing will be undertaken weekly until the results are received. If Coliforms, E. coli, or elevated TMV's are detected the sampling point will be cleaned, flushed and retested. If Legionella bacteria is detected the steps taken in section 10 of this written scheme will be taken and which may lead to the system being cleaned and disinfected again.

12. Forms/templates to be used

Little used flushing form (LM006)

13 Associated Documents

Water Hygiene Policy

Water Hygiene Procedure

Procurement Specification

COSHH records for chemicals used on site



believehousing.co.uk