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Loddon Town Council

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Legionnaire's disease: Management and Control Policy

1. Purpose

Health & Safety legislation places responsibility on Loddon Town Council (LTC) to manage their assets in a manner that minimises risk of exposure to Legionella for all stakeholders.

LTC discharge this responsibility through suitable risk assessment and implementation of a scheme of control detailed within this document. This document identifies the hazards associated with exposure to Legionella, the Risks that LTC water systems present, and how those risks are manged to reduce those risks to as low as is reasonably practicable.

2. Policy

It is LTC's policy to have in place all the necessary and appropriate measures for the prevention of the formation of Legionella bacteria providing, as far as reasonably practicable, a high level of protection to all persons who may be affected by the use of their water services.

3. Scope

LTC's Legionella control policy, and requirements identified within this document, form a written scheme of control that applies to; all Councillors, employees of LTC, and contractors who may be conducting works affecting LTC water systems.

4. Background

Legionellosis is a collective term for diseases caused by Legionella bacteria, the most serious being Legionnaires disease.

Legionella bacteria is commonly found in in low numbers in natural water courses but can also be found in purpose built water systems such as hot and cold water systems, cooling towers, and air conditioners etc. In natural water courses conditions are normally suited for bacterial development or for people to catch the disease. In man made systems however the bacteria may multiply where temperatures are between 20-45°C and nutrients are available. The bacteria are dormant below 20°C and do not survive above 60°C.

Legionnaires' disease is a potentially fatal type of pneumonia, contracted by inhaling airborne water droplets containing viable Legionella bacteria. Such droplets can be created by hot and cold water outlets, and atomising outlets such as Showers.

Legionella bacteria can present a significant risk to health where; water is stored or re-circulated, water temperature in parts of the system are between 20-45 °C, there is a build up of; rust, sludge, scale, organic matter and biofilms.

These risks can further be enhanced if the system design incorporates features which allow stagnation to occur such as 'dead legs', capped off pipes, and infrequently used outlets, or the system uses materials that harbour bacteria.

5. Methods of controlling exposure to Legionella

The first consideration should be whether those risks may be eliminated, or severely reduced by system design. In the case of hot and cold water systems this may involve adopting systems which avoid water storage such as removing storage tanks and installing point of use instantaneous water heater for example. Where this is impractical steps must be taken to devise

and implement suitable control measures. A detailed Risk assessment must be undertaken and the necessary control measures identified should be documented in a written scheme of control, tailored to the specific systems covered by the risk assessment. This document forms that scheme. The measures identified in this document must be rigorously implemented and the system must be regularly monitored in order to assess its effectiveness.

6. Applicable Legislation and Guidance

6.1. Health & Safety at Work act 1974

The Health and Safety at Work Act places the Council under a general legal obligation to ensure the health, safety, and welfare, of employees, users of their facilities, and other stakeholders, as far as is reasonably practical.

6.2. Control of Substances Hazardous to Health 2002 (COSHH)

Requires the Council to control exposure to hazardous substances, including Legionella, and where prevention or substitution is not reasonably practical, to implement control measures, and provide information and training to employees.

6.3. Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (RIDDOR)

Mandates reporting to Health & Safety Executive (HSE) cases of Legionella where a doctor notifies LTC and the water systems within their scope of control are likely to be a source.

6.4. Approved Code of Practice (ACOP) L8, The control of Legionella bacteria in water systems

A code of practice approved by the HSE which gives practical advice on how to comply with the law. The Code has special legal status and being seen to be following the Code is likely to be recognised by the Courts that LTC are doing enough to comply with the law.

6.5. HSG274 Pt2 The control of Legionella bacteria in hot and cold water systems

Technical guidance for Duty holders and those in control of premises to help them comply with their legal duties. It gives guidance on assessing and controlling Legionella risks.

7. Roles and responsibilities

Inadequate management, lack of training and poor communication can be contributory factors in outbreaks of Legionnaires' disease. It is important that people involved in assessing risk and applying precautions are competent, trained and aware of their responsibilities. LTC staff will be properly trained and competent to carry out the appropriate measures, the Clerk shall identify training needs and the LTC shall facilitate such training as is necessary.

7.1. The Duty Holder

The Duty holder is the owner, occupier, employer or other person or body ultimately
Legally accountability for compliance with legislative requirements as defined in "Legionnaires Disease: the Control of Legionella Bacteria in Water Systems" (L8). LTC is the 'Duty Holder' with respect to the safe operation of Council facilities and has ultimate responsibility for ensuring that obligations under current legislation are met. LTC will ensure adequate funding and systems are in place to enable all reasonably practicable steps are taken to protect all stakeholders from exposure to legionella bacteria in their water systems.
The LTC have appointed a Responsible person to take day-to-day responsibility for controlling risks from legionella bacteria.

7.2. Responsible Person

The Responsible person is managerially responsible for the legionella management system. The nominated person must be a manager and have sufficient authority to ensure that all operational

procedures are carried out in an effective and timely manner. The responsible person must also possess a sound understanding of the control of legionella through appropriate training. The LTC have identified the Clerk to the Council as the Responsible person.

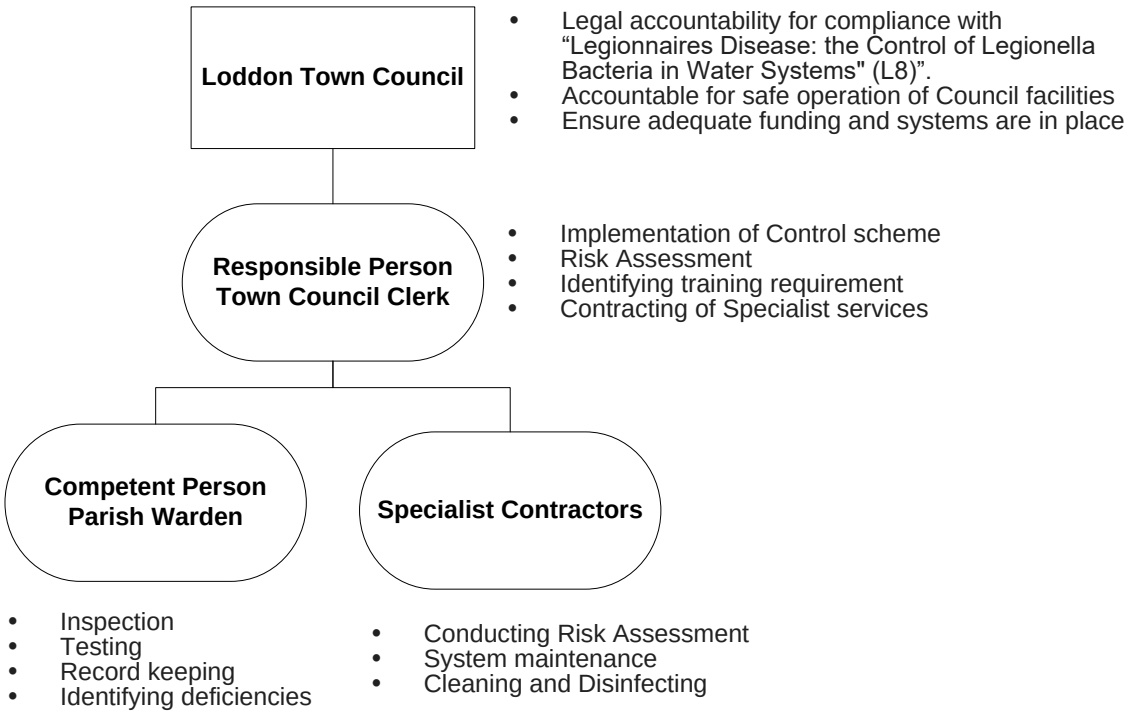
The Clerk shall ensure:

- Overall compliance with the written scheme
- That building water system schematics are updated after any significant changes.
- Risk assessments are carried out regularly and in accordance with industry guidance and legislation. or following any significant event or change.
- Staff are competent to carry out aspects of control which they have been assigned.
- Identify the need for, and Contract with suitably qualified specialists as and when required. (conduct of the Legionella Risk assessment is an example of where this is required)
- Take reasonable steps to ensure contractors are competent

7.3. Competent person

It is recognised that the Responsible person cannot be an expert on all matters and must be supported by competent staff and contracted specialists.
The Responsible person shall nominate a suitably experienced, knowledgeable, and trained member of staff as a Competent person. In this instance that Competent person shall be the Parish Warden.
The Parish Warden shall be responsible for; routine Inspection, testing, and record keeping, as detailed in the scheme of control, and ensure that any shortcomings are brought to the immediate attention of the Clerk.

7.4. Organisation



8. Risk Assessment

Carrying out a legionella risk assessment and ensuring it is up to date is required under health and safety law and is key to managing the risk of exposure to legionella bacteria. The Responsible person will commission a formal Legionella risk assessment which will assess if:

- Water is stored or re-circulated in the system
- The water temperature in some parts of the system may be between 20–45 °C
- There are deposits that support bacterial growth such as rust, sludge, scale, organic matter and biofilms
- It is possible for water droplets to be produced and, if so, whether they can be dispersed
- It is likely that any LTC stakeholders could be exposed to contaminated water droplets

The Risk assessment will include a site survey of all the water systems and consider other health and safety aspects of undertaking such investigations.
A specialist contractor will be engaged to conduct the detailed risk assessment in line with HSG274 Appendix 2.1, deliver a report, and make recommendations for achievement of full compliance and adoption of best practice.

9. Management and Control Scheme

The Legionella management and control scheme adopted by LTC is informed by the Risk assessment and subsequent report, and includes the following measures:

9.1. Temperature control

Cold water systems are to be maintained below 20 °C. Hot water is to be stored at least at 60 °C and distributed so that it reaches a temperature of 50 °C within one minute at the outlets.
There is a risk of scalding where water comes out of taps above 44°C. For most people the scalding risk is minimal where water is delivered up to 50°C and a hot water warning notice is sufficient and recommended in the Risk report. Although for most people, the risk of scalding at this temperature is low the Duty holder should take account of susceptible 'at risk' people including young children, people who are disabled or elderly and to those with sensory loss who may be using Council facilities and for whom the risk is greater. In these cases the fitting of thermostatic mixing valve (TMV) Type 3 may be required to prevent water being discharged at more than 44°C. This measure has been implemented within the Staithe Public convenience water system.

9.2. Flushing

Measures are to be taken to encourage the regular movement of water to manage the risk from legionella in particular by regularly drawing water from little used parts of the system.

9.3. Cleaning

Periodic cleaning and descaling regimes will be implemented to ensure the cleanliness is maintained, as legionella bacteria are more likely to grow in a system fouled with deposits.

9.4. Water systems schematics

The formal risk assessment identified two water systems within LTC control that present a Legionella risk; The Hot and Cold water system at the Library Annex building on Church Plain Loddon, and the hot and cold water system within the Public conveniences at Loddon Staithe. The system at the Library Annex being a Combination boiler hot water system, and the Staithe system being a Pressurised hot water system, as defined in technical guidance HSG274 Pt2.In both instances these systems are described as Non-recycling.
To inform the implementation strategy and facilitate an understanding of these systems schematic drawings have been produced, copies are contained in the Annex to this document. These schematics are simplified but accurate illustrations of the Library Annex and Staithe water systems. They are important tools as it allows any person who is not familiar with the system to understand their layout without any specialised training or experience.

9.5. Normal operation and inspection of systems

Informed by output from risk assessment and HSE guidance published in HSG 274 Pt2 LTC's scheme of control is summarised in the table below:

Service	Action to take	Frequency
Calorifiers (Staithe Toilets)	Where possible, inspect internally and clean by draining. Where not possible to inspect internally, purge any debris to a suitable drain and inspect for clarity and presence of debris.	Annually
	Check flow temperature is at 60 °C or greater	Monthly
Hot Water services	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.	Monthly
Combination water heaters (Library Annex)	Inspect the integral cold water tank. Clean and disinfect as necessary.	Annually
	Check temperature at an outlet to confirm heater operates at 50-60 °C	Monthly
Cold water services	Check temperatures at Sentinel taps. These outlets should be below 20 °C within 2 minutes	Monthly
	Check thermal insulation is intact.	Annually
Showers	Dismantle, clean and descale removable parts, heads, inserts and hoses.	Quarterly
Infrequently used outlets (Service taps etc.)	Flush outlet until temperature stabilises and purge to drain.	Weekly
Thermostatic Mixer Valves (TMV's)	Check, clean, and recalibrate in accordance with manufacturer's instructions	Annually
Expansion vessels	Purge to drain. Change bladders in accordance with manufacturers guidelines.	Six monthly

9.6. Test methods

Temperature readings shall be taken by the Competent person at a frequency indicated in the table above utilising an electronic temperature probe sourced for this specific purpose. This equipment is to be routinely calibrated to ensure readings can be relied upon. Readings obtained are to be recorded using the Record sheets contained in the Annex to this document.

9.7. Flushing operations

Flushing at Sentinel and infrequently used outlets shall be performed by the Competent person in line with the table above and as identified in the system schematics. This action is to be recorded using the Record sheets contained in the Annex to this document.

9.8. Cleaning and disinfecting

Where necessary, hot and cold water services will be cleaned, flushed and disinfected in the following situations, as specified in BS 8558:

- On completion of a new water installation or refurbishment of a hot and cold water system
- On installation of major new components
- Where the hot and cold water is not used for a prolonged period and has not been flushed as recommended or the control measures have not been effective for a prolonged period
- On routine inspection of the water storage tanks, where there is evidence of significant contamination or stagnation
- If the system or part of it has been substantially altered or entered for maintenance
- Where water sampling results that indicate evidence of microbial contamination
- During, or following an outbreak or suspected outbreak of legionellosis linked to the system

Disinfecting which can take one of two forms:

- Thermal disinfection; raising the hot water temperature to a level at which legionella will not survive and drawing it through to every outlet
- Chemical disinfection; adding an effective agent such as chlorine or chlorine dioxide, drawing it through to every outlet, then closing the outlets and allowing it to remain in contact for a suitable period

An external specialist contractor is to be engaged should this activity be necessary.

9.9. Microbiological testing

Microbiological monitoring is not usually required unless a problem is indicated. Testing will be carried out where:

- There is doubt about the efficacy of the control regime or it is known that recommended temperatures are not being consistently achieved throughout the system.
- Water systems are suspected or identified in a case or outbreak of legionellosis

Where testing is considered appropriate, sampling should be carried out in accordance with BS 7592. Analysis of water samples are to be performed in UKAS accredited laboratories.

If legionella is found in the water system a review of the control measures and a new risk assessment will be carried out to identify any remedial actions necessary. Retesting is to take place after disinfection and at frequent intervals until a satisfactory level of control is achieved.

9.10. Start up of systems

Where commissioning, or recommissioning of any of LTC's water systems is required, those systems will be inspected and disinfected in line with guidance contained within HSG274 before their use is permitted. A specialist contractor will be engaged for this purpose.

9.11. Close down of systems

Should it be necessary to close down any of LTC's water systems, those systems are to be drained and remain so for the duration.

9.12. Accidents and Outbreaks

An outbreak is defined as two or more cases where the illness is closely linked in time and where there is evidence of a common source of infection.

Legionnaire's disease is notifiable under the Health Protection (Notification) Regulations 2010.

In the event of an outbreak LTC will put the following control measures in place immediately:

- The relevant system will be shut down until sampling procedures and remedial cleaning or other work has been completed
- Water samples will be taken before any emergency disinfection is undertaken
- Staff health records to check for other undiagnosed cases of illness
- Full co-operation will be provided to the local enforcement agency who may undertake an investigation by providing all Schematics, operational records, statements from key personnel and statements from water treatment consultants and/or contractors.

9.13. COSHH

The use and requirement to store any chemicals in association with LTC water systems is to be minimised. Where it is unavoidable they are to be stored in a locked area or container and be used strictly in line with manufacturer guidance, with appropriate personal protective equipment, and in line with COSHH regulations.

9.14. Record keeping

The results of monitoring and Inspection activity are to be recorded. Records are to be retained for at least five years. This shall include; Training records; records of the work of external service

providers. These records must contain accurate information about who did the work and when it was carried out. All records should be verified or authenticated by a signature.

9.15. Review activity

The assessment of risk is an ongoing process and LTC requires the Responsible person to review of the assessment regularly in line with Industry guidance, or if any of the following have occurred:

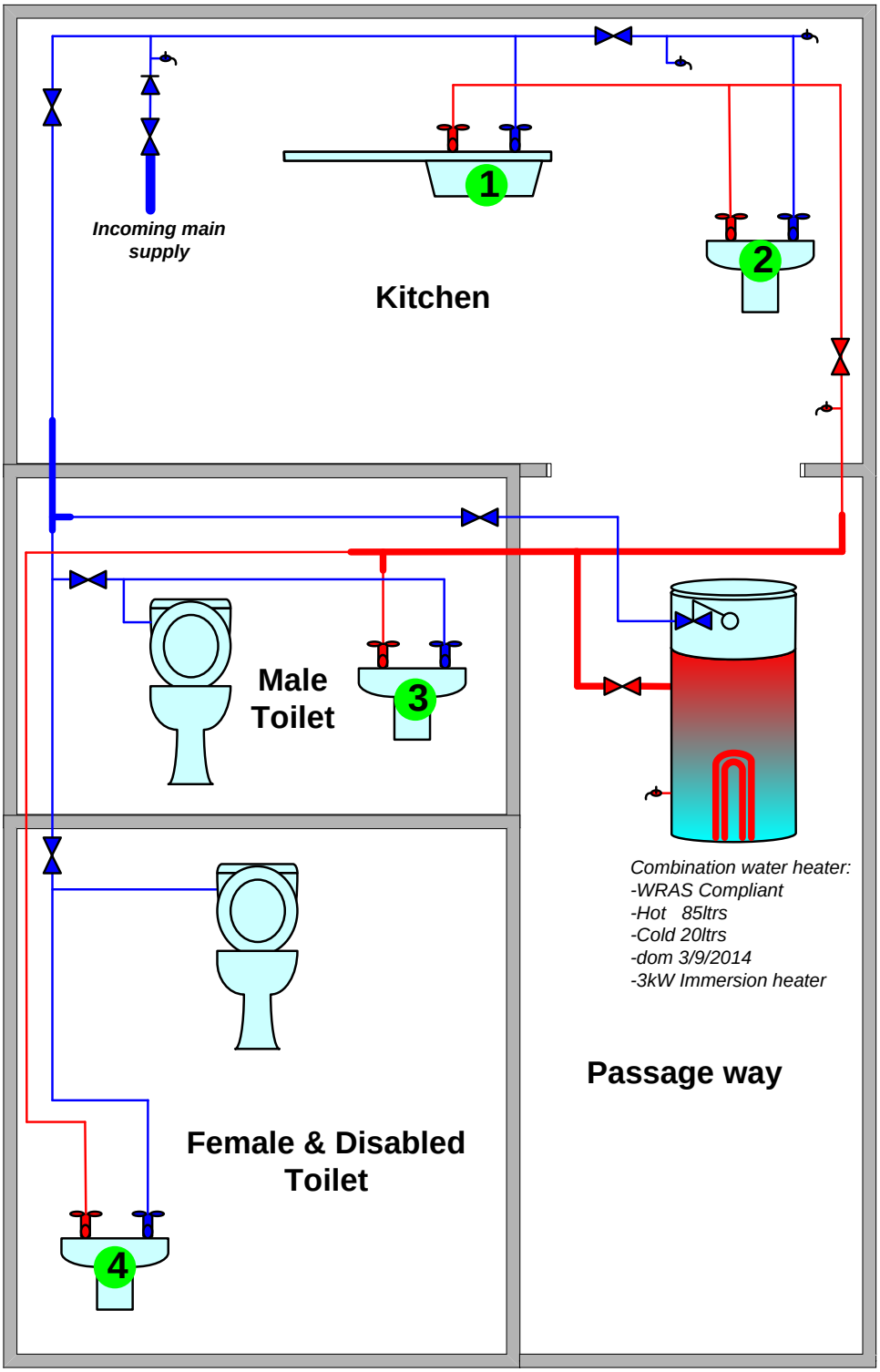
- A significant change to the water system or its use
- A change to the use of the building where the system is installed
- New Legislation or Guidance becomes available
- The results of checks indicate that control measures are no longer effective
- Changes to key personnel
- A case of legionnaires' disease/legionellosis has arisen associated with the system.

This policy was adopted by Loddon Parish Council at its meeting held on 11 May 2022.

Signed: Dated:

Date for next review: May 2025 (reviewed every three years)

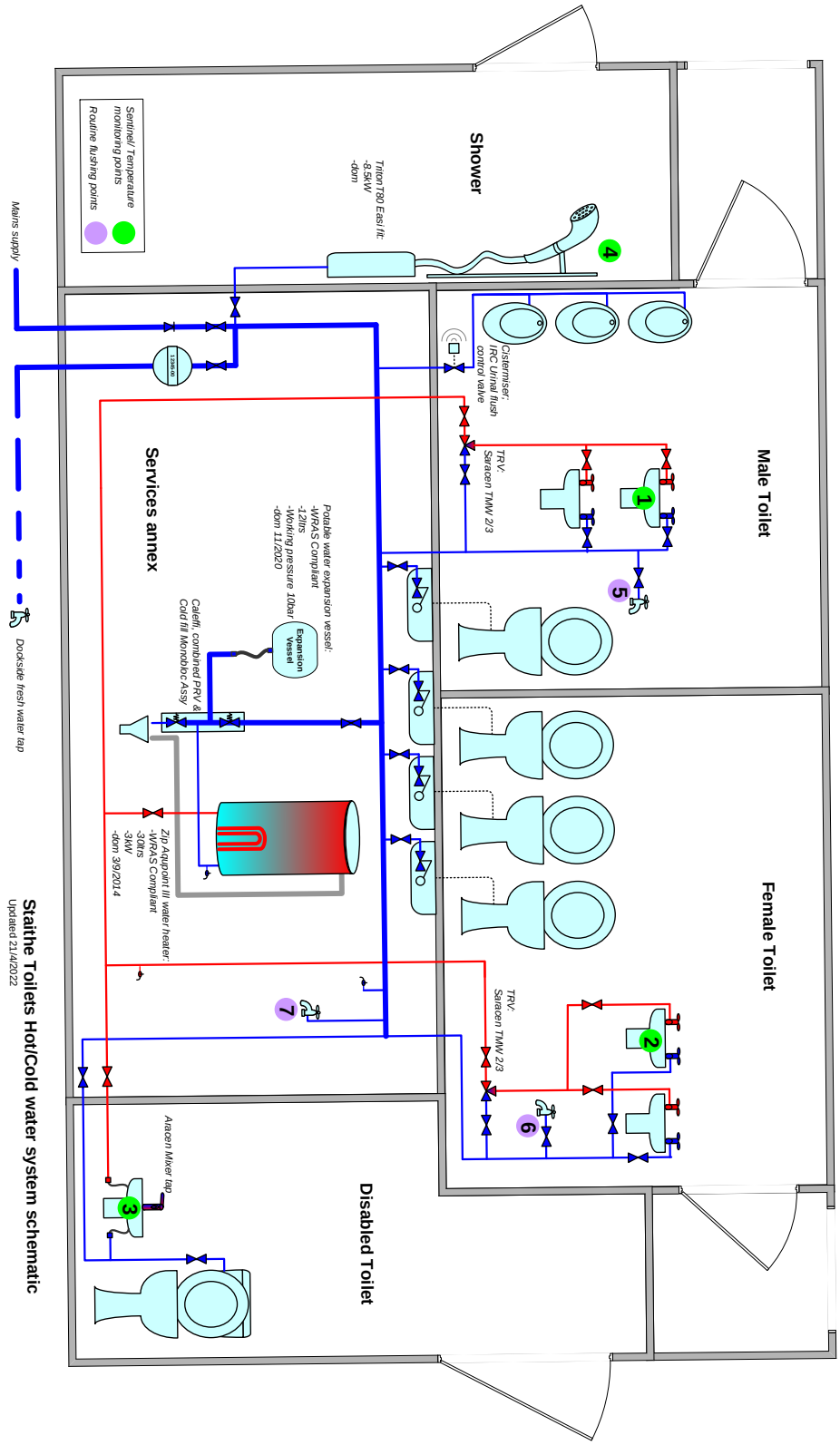
Annex:1.1 System schematic: Library Annex



Sentinel 'Group' number

Library Annex Hot/Cold water system schematic Updated 14/4/2022

Annex:1.2 System schematic: Staithe Public Conveniences


Sentinel/ Temperature monitoring points
Routine flushing points
Shower
Triton T80 Eas/ fit:
-8.5kW
-dom
Cistermiser/
IRC Urinal flush
control valve
TRV:
Saracen TMW 2/3
Male Toilet
Services annex
Potable water expansion vessel:
-WRAS Compliant
-12ltrs
-Working pressure 10bar
-dom 11/2020
Expansion Vessel
Caleffi, combined PRV &
Cold fill MonoBloc Assy
Zip Aqupoint III water heater:
-30ltrs
-3kW
-dom 39/2014
Female Toilet
TRV:
Saracen TMW 2/3
Aracen Mixer tap
Disabled Toilet
Mains supply
Dockside fresh water tap
Staithe Toilets Hot/Cold water system schematic
Updated 21/4/2022