

**Bathurst Regional Council
Legionella Management
Plan**

adopted December 2021



**BATHURST
REGIONAL
COUNCIL**

PURPOSE

The purpose of the Legionella Management Plan is to minimise the risk of transmissions of Legionellosis (Legionnaires Disease) from the built environment to susceptible hosts.

The principal goals of the Management Plan are to ensure that:

- All regulated water-cooling systems and warm-water systems are registered in accordance with the Public Health Act, 2010, Public Health Regulation, 2012 and the Public Health Amendment (Legionella Control) Regulation 2018.
- All water-cooling systems as defined by the Public Health Act, 2010 shall comply with legislation in respect to installation, commissioning, operation and maintenance.
- Building occupiers understand and adhere to their responsibilities of installing, operating and maintaining water cooling systems in accordance with the Public Health Act, 2010, Public Health Regulation, 2012 and the Public Health Amendment (Legionella Control) Regulation 2018.
- All water-cooling towers within a water-cooling system are to be issued with a Council specific Unique Identifying Number (UID)
- All water-cooling systems must have a current Risk Management Plan (RMP) and be annually audited by an approved independent auditor.
- All water-cooling systems may be inspected by a Council officer upon receipt of latest RMP to ensure compliance with Public Health Legislation.
- Standard operating procedures for water cooling systems is to be followed.

BACKGROUND AND RELATED LEGISLATION

Within most local government areas the built environment will contain water cooling systems and warm water systems. These systems can provide an ideal breeding ground for Legionella bacteria. The Legionella bacteria can cause a type of pneumonia (an infection of the lung), which can be fatal, known as Legionnaires' disease and/or Pontiac fever (a mild flu-like illness). The disease has an incubation period from 2 to 10 days for the symptoms to develop after inhaling the bacteria. The Legionella bacteria are transmitted through aerosols.

Outbreaks of Legionnaires' disease occur from time to time but are preventable. Legionella bacteria can grow in poorly operated and maintained water cooling systems and warm-water systems, particularly those systems which are not maintained in a clean condition and continuously treated with a biocide to control Legionella bacteria, algae and biofilms.

Hundreds of residents, workers and visitors may be potentially exposed to this health hazard on a daily basis if systems are not properly installed, commissioned, operated and maintained.

The Public Health Act, 2010 (the Act) and Public Health Regulation, 2012(the Regulation) and the Public Health Amendment (Legionella Control) Regulation 2018 control various water and air systems in the built environment. These systems are known as 'regulated systems' and include:

- Water cooling systems
- Hot water systems
- Humidifying systems
- Warm water systems
- Air handling systems

However, Council is only responsible for maintaining a register of warm water systems and water-cooling systems. Council is responsible for the regulation of water-cooling systems only.

The purpose of the Act and Regulation is to ensure occupiers of buildings comply with minimum legislative responsibilities in order to prevent or prohibit the growth of micro-organisms in these regulated systems that are liable to cause Legionnaires' disease and other diseases.

Related legislation includes:

- NSW Public Health Act, 2010
- NSW Public Health Regulation, 2012
- Public Health Amendment (Legionella Control) 2018
- AS/NZS 3666.1: 2011 Air-handling and water systems of buildings - Microbial control - Design, installation and commissioning
- AS/NZS 3666.2: 2011 Air-handling and water systems of buildings - Microbial control - Operation and maintenance
- AS/NZS 3666.3: 2011 Air-handling and water systems of buildings - Microbial control – Performance based maintenance of cooling water systems.

SCOPE

This plan applies to all buildings in the local government area utilising a water-cooling system. The plan will assist Council to inform the following persons to ensure compliance with the regulatory requirements in order to minimise the potential for outbreaks of Legionnaires' disease:

- Developers
- Architects
- Building occupiers
- Council authorised officers
- Other stakeholders

DEFINITIONS

To assist in interpretation, the following definitions apply as defined by the Public Health Act, 2010 includes but is not limited to mean any of the following:

Term	Definition
Warm Water System	Being a system designed to heat and deliver water at a temperature of less than 60°C at each outlet point.
Water Cooling System	Being: (i) a device for lowering the temperature of water or other liquid by evaporative cooling, or

	(ii) an evaporative condenser that incorporates a device containing a refrigerant or heat exchanger together with its associated equipment and pipe work.
Occupier	The owner of a premises (e.g. building) on which a water cooling system is located; the person entitled to occupy the premises (e.g leaseholder or tenant); or the owners corporation of premises under a strata scheme. The occupier is responsible for ensuring that their water cooling system is managed (installed, operated and maintained) in accordance with the Act and Regulation.
Duly Qualified Person (DQP)	A person who installs, operates, or maintains the cooling water system on a routine basis. This person is typically employed by a water treatment company, mechanical services company, or other industry organisation. The Regulation allows the occupier to carry out this role, if they meet the definition of DQP.

PLAN

1. Regulation of warm water systems and water-cooling systems

Council will regulate water- cooling systems through a review of documentation and inspections as required. A fee in accordance with the adopted Fees and Charges Policy is applicable.

1.1 Review of water-cooling systems and warm water systems.

Warm water systems are required to be registered with Council; however, the NSW Public Health Unit is responsible for the monitoring, testing and inspection on warm water units. The building occupier will be required to complete the Approved NSW Health Approved Form 6 – Notification of installation or change in particulars to ensure Council's register is maintained up to date and accurate.

Water cooling systems are required to be registered with Council; the building occupier will be required to provide the annual audit report using NSW Health Approved Form 2 – Audit Report for all water-cooling systems to ensure compliance. If any details change in between audit times Council must be notified using NSW Health Approved Form 6 –Notification of installation or change in particulars to ensure Council's register is maintained up to date and accurate.

1.2 Inspection of water-cooling systems

In addition to reviewing annual audits, water cooling systems may be inspected at the discretion of Council after an updated Risk Management Plan completed on NSW Health Approved Form - 1 Risk Management Plan (RMP) has been received by Council. When conducting the inspection, Council's authorised officer should:

- Make an appointment with the appropriate person responsible for the regulated system, or in the case of an emergency, present themselves at reception, advise that they are at the premises to conduct an inspection and request to speak to an appropriate person.
- Conduct the inspection at a reasonable time.
- Provide proof of identity when requested.
- Adhere to any occupational health and safety requirements applicable whilst in attendance.

- Record all non-compliances.
- Provide a written report on all outcomes from the inspection.
- Answer any questions relating to the report or other related matters.
- Be courteous and fair throughout the inspection.
- Exercise discretion when required in all of the above matters.

1.3 Re-inspection

Council may undertake a re inspection (where required) to enforce compliance with legislation. A re-inspection will be undertaken for all non-compliances where the risk is considered greater than low and the non-compliance cannot be immediately rectified. A re-Inspection fee will be applied.

1.4 Verbal warnings

Council's Authorised Officers may issue verbal warnings for non-compliances where the risk of the non-compliance is considered low or can be immediately rectified.

1.5 Written warnings

Council may issue a written warning (letter) for non-compliances where the risk of the non-compliance is considered low, is the first offence and not an immediate risk to public health.

1.6 Improvement Notice

Council may issue an improvement notice for non-compliance with the Public Health Act 2010, Public Health Regulation 2012, where non-compliance/s present a medium to high risk or where a warning has previously been issued.

1.7 Penalty Notice

Council may issue a penalty notice where a business fails to rectify non-compliances or where the risk of non-compliance is considered medium to high.

1.8 Prohibition Order

A prohibition order may be issued on a business failing to comply with Public Health Act 2010, Public Health Regulation 2012, where continued operation of a business, use of specific rooms or equipment presents a serious risk to public health.

2. Council's responsibilities and requirements

2.1 Register and provide a Unique Identifying Number

Council must maintain a register of all warm-water systems and water-cooling systems throughout the local government area.

All water cooling towers within a water-cooling system must have a Unique Identifying Number displayed on each tower. This number is issued by a Council Officer and must contain Councils NSW Health appointed Council acronym. For example, BRC-0001- 01.

2.2 Inspections

Environmental Health Officers are authorised under the NSW Public Health Act to undertake inspections of water-cooling systems and take action where a system does not comply with applicable legislation.

2.3 Reporting

A local government authority must on request make its register available for inspection without charge by the Secretary, a public health officer or an officer of the Ministry of Health authorised by the Secretary.

2.4 Receipt of a Notification of Reportable Test Results

Occupiers must notify Council within 24 hours of receiving a reportable test result using NSW Health Approved Form 4 – Notification of reportable test result. Upon receiving a notification Council will liaise with the NSW Public Health Unit as to what steps they have taken and what if any steps Council needs to take. A copy of the submitted form will be placed on file.

3. Responsibilities and requirements for building occupiers

The responsibility for a water-cooling system varies according to the circumstances. Generally, the prime responsibility for a regulated system rests with the occupier of the premises where the water-cooling system is located.

3.1 Occupier

The occupier of the part of premises (operation area) on which the water-cooling system is situated is responsible for the proper installation, commissioning operation and maintenance of the regulated system in accordance with the Act and Regulations.

The occupier is also required to register the water-cooling system and provide a certificate of completion of a Risk Management Plan to the local authority. The building manager, if engaged by the occupier, is the agent of the occupier and the occupier still bears the legal responsibility for the water-cooling system.

3.2 Installation

A water-cooling system must be installed and commissioned in accordance with AS/NZ 3666.1:2011. If a water-cooling system is not installed as required, then both the installer and the occupier of that part of the building where the system is installed (whether the occupier is the owner or not) are both guilty of an offence.

The occupier must be given both an operation manual and a maintenance manual for the system by the installer, each of which must comply with the requirements for such manuals set out in AS/NZS 3666.2:2011. The operating manual should depict the water treatment process and include:

- Physical details (drawing)
- Operating procedures
- Shut down procedures
- Emergency contact details

- Contractor contact details
- Decontamination procedures

Manuals should be periodically reviewed by site owners/occupiers to incorporate amended legislation, standards, codes and industry practices. Manuals shall be kept onsite adjacent to the water-cooling systems or in a clearly identified location in proximity to the installation. A person in charge of the facility must be familiar with the location of these manuals.

3.3 Operation

Water cooling systems must be operated in accordance with AS/NZS 3666.2:2011. A water-cooling system must be equipped with a disinfection procedure that is in operation at all times and that is designed to control microbial growth so that:

- The level of Legionella in the system is less than 10 colony-forming units per millilitre (cfu/mL) , and
- The heterotrophic colony count (HCC) in the system is less than 100,000 colony-forming units per millilitre(cfu/mL)
- There must be safe and easy access to a cooling water system for the purpose of the cleaning, inspection and maintenance of the system.

3.4 Notification of reportable results

The occupier of premises on which a cooling water system is installed must ensure that any reportable test results are provided, in the approved form 4, to the local government authority for the area no later than 24 hours after they are received by the occupier.

Reportable test results mean the results of a laboratory test of a cooling water system carried out that show either of the following:

- The number of colony-forming units for Legionella is greater than or equal to 1,000 colony-forming units per millilitre,
- The heterotrophic colony count is greater than or equal to 5,000,000 colony- forming units per millilitre.

The Occupier may put in place contractual agreements allowing the duly qualified person or laboratory to notify the local government authority of a reportable test result on their behalf.

3.4 Maintenance

The Public Health Regulation 2012, Part 2 Legionella Control, outlines the required Australian Standards for the maintenance of regulated systems. These are:

Warm water systems

- Must be operated and maintained as required by AS/NZS 3666.2:2011, and
- There must be a safe and easy access to a warm-water system for the purpose of the cleaning, inspection and maintenance.

- (c) Maintenance carried out on a warm-water system must comply with the document entitled Water- Requirements for the provision of cold and heated water published by the Ministry of Health.

Cooling water systems

- (a) Must be maintained in accordance with AS/NZS 3666.3:2011, and
- (b) A cooling water system must be maintained in accordance with the control strategies set out in Table 3.1 (for legionella) and Table 3.2 (for heterotrophic micro-organisms) of that standards, and
- (c) The risk assessments for a cooling water system that are required must be conducted in accordance with subdivision 3 of the Public Health Amendment (Legionella Control) Regulation 2018.

If the occupier fails to ensure that the water-cooling system is operated and maintained properly then the occupier is guilty of an offence.

3.5 Records

The occupier of premises on which a cooling water system is installed must ensure that each of the required documents is either:

- (a) Kept on the premises, and made available for inspection on request by an authorised officer, or
- (b) Kept electronically, and made available for inspection, on request by an authorised officer, within 4 hours of the request.

Required documents, in relation to a cooling water system, means each of the following:

- (a) The documentation of the risk assessment
- (b) The notice of the risk assessment
- (c) The documentation of each audit of compliance with the risk assessment that was carried out in the last 60 months
- (d) The notice provided of each such audit of compliance
- (e) The reports of each monthly testing and inspections carried out in the last 60 months
- (f) The operating and maintenance for the system
- (g) All records of the maintenance and service of the system.

If the occupier fails to ensure that the water-cooling system is operated and maintained properly then the occupier is guilty of an offence.

3.6 Registration

Under legislation, the occupier of the part of the premises where a water-cooling system or warm water system is installed must notify the local Council of the following particulars:

- The address and telephone number of the premises on which the system is installed
- The name and contact details of the occupier of the premise (including residential address, e-mail address and home, business and mobile telephone numbers)
- The Australian Business Number (ABN) or Australian Company Number (ACN) if any, of the occupier of the premise
- The type of system

These particulars must be notified to the Council within one month after the person becomes the owner or occupier of the premise or if there is an alteration of the above details.

4. Disease management and outbreak responses

NSW Health and its Public Health Unit are responsible for coordinating a case investigation and outbreak response under the relevant notifiable disease protocols. Notification is affected by medical practitioners and laboratories to the Director General of NSW Health.

Council Officers should notify the local Public Health Unit:

- Upon receipt of a notification of reportable test results. Council will liaise with the NSW Public Health Unit as to what steps they have taken and what if any steps Council needs to take.
- Multiple failures occur or when a water-cooling tower has been unregistered and/or has incomplete/outdated maintenance records; or
- If a member of the public notifies Council of a health concern regarding Legionnaire's disease.

5. Fees and charges

In accordance with section 608(3) of the Local Government Act 1993, Council is able to recover costs of inspecting water cooling systems. A fee for these inspections can be adopted by Council each year and any applicable fees can be listed in Council's Revenue Policy for that year.

6. Training, appointment, and competency of Authorised Officers

6.1 Appointment of Authorised Officers

An Authorised Officer is a person appointed under the Public Health Act.

6.2 Powers of Authorised Officers

For the purposes of this Act, an authorised officer may, at any reasonable time, do any one or more of the following:

- Enter the premises at any reasonable time in order to find out whether or not a system on the premises is a regulated system
- Inspect and test any system on the premises
- Investigate whether or not the prescribed operating requirements, and the prescribed maintenance requirements, have been complied with in relation to any regulated system on the premises
- Require the production of, and inspect, any records required by the regulations to be kept in relation to the operation and maintenance of any regulated system on the premises.

6.3 Competency and training of Authorised Officers

Environmental Health Officers have a key role in auditing premises and assisting NSW Health in outbreak investigations during which local knowledge is essential.

Council will support the attendance of relevant officers at training courses, as they become available.

Workplace Health and Safety applies in all situations involving the inspections of water-cooling towers, all officers shall be provided with appropriate PPE (eye protection, P2 rated respirator and gloves) to safely conduct inspections.

7. Further information and support

Bathurst Regional Council Environmental Health Section can be contacted on 6333 6111 to answer any questions regarding Legionella control.

Further information and guidance on public health matters is available from NSW Health through its local Public Health Unit on 1300 066 055. Further information and guidance is also provided on the Legionella control webpage:

<https://www.health.nsw.gov.au/environment/legionellacontrol/Pages/default.aspx>

The following NSW Health link contains factsheets which summarise the new requirements for occupiers of water-cooling systems:

<https://www.health.nsw.gov.au/environment/legionellacontrol/Pages/fact-sheets.aspx>