



QUEENSLAND BUILDING AND
CONSTRUCTION COMMISSION



Home owner's
Guide

PLUMBING MATTERS

Tips and hints to help you keep the plumbing and drainage connected to your property well maintained.

TABLE OF CONTENTS

INTRODUCTION	2
What is the role of the Queensland Building and Construction Commission?	3
What is the role of the Service Trades Council (STC)?	3
Who is the STC?	3
Who does what—the QBCC and Local Government Authorities	3
Water and drainage tips for home owners	4
Choose a licensed contractor	4
Notifiable work	5
Watermark certification and non-compliant plumbing products	6
Temperature control devices	6
Hot water systems	6
Legionella	6
Lead and other contaminants	6
Rainwater tanks and drinking water quality	7
On-site sewerage treatment facilities	7
Contact us	8

INTRODUCTION

Well-maintained plumbing and drainage is crucial to maintaining the high standard of public health and safety that we are accustomed to living in Australia.

In Queensland, we are fortunate to have approximately 16,800 licensed plumbers who are legally allowed to perform plumbing and drainage work in this State.

As a property owner, you also have a responsibility to ensure the plumbing and drainage connected to your properties are well-maintained in accordance with Australian Standards. The easiest way to do this is to engage a licensed plumbing contractor for any plumbing and drainage work that needs to be done.

It can be confusing to know who to contact in Queensland when it comes to plumbing and drainage, as the Queensland Building and Construction Commission (QBCC) co-regulates the industry with Local Government Authorities (LGA). The Service Trades Council (STC) also operates as a voice for the industry in Queensland.

To help owners make sense of plumbing and drainage maintenance in Queensland, this booklet has been developed as a guide. This booklet explains the law in simple language, but is not a substitute for the legislation. You will find general information and examples—not legal advice or a definitive list of situations where the law applies.

This booklet also outlines who to contact, issues to be aware of, and offers helpful suggestions about how you can maintain plumbing and drainage around your property, including servicing your hot water system.



WHAT IS THE ROLE OF THE QUEENSLAND BUILDING AND CONSTRUCTION COMMISSION?

The QBCC regulates the building and construction sector, which includes the service trades industry, to ensure the maintenance of proper building standards.

As the State's building regulator, the QBCC aims to achieve a reasonable balance between the interests of home owners and licensed contractors. Industry participants and home owners can visit one of the QBCC's nine service centres, go online at qbcc.qld.gov.au.

WHAT IS THE ROLE OF THE SERVICE TRADES COUNCIL?

The STC is an independent regulatory body representing those working in Queensland's service trades, which includes plumbing, drainage, fire protection, air-conditioning and mechanical services.

The STC was created to:

- promote and enhance the licensing of plumbing, drainage, fire protection, air-conditioning and mechanical services tradespeople;
- support the QBCC in investigating complaints relating to regulated and unlicensed work in the service trades, and to take appropriate enforcement action where necessary;
- be a responsive regulator, in addressing issues of concern raised by the Minister for Housing and Public Works or representatives of the STC; and
- assist the QBCC in promoting acceptable standards of competence for the service trades.

Furthermore, the STC can make recommendations to the QBCC Commissioner about the performance of the Commissioner's functions under the *Plumbing and Drainage Act*.

The STC can also raise issues related to the service trades with the Minister for Housing and Public Works, or the Minister may refer trade issues to the STC for it to consider.

WHO IS THE STC?

The STC's members and deputy members are appointed by the Governor in Council and include:

- At least one representative from each of the following:
 - » Air Conditioning and Mechanical Contractors Association of Queensland Ltd
 - » Communications, Electrical and Plumbing Union, Plumbing Division, Queensland Branch
 - » Department in which the *Fair Trading Act 1989* is administered (an individual nominated as a representative of consumers)
 - » Department in which the *Plumbing and Drainage Act* is administered
 - » Department in which the *Further Education and Training Act 2014* is administered
 - » Department in which the *Public Health Act 2005* is administered
 - » Institute of Plumbing Inspectors Queensland Inc
 - » Local Government Association of Queensland Ltd
 - » Master Plumbers' Association of Queensland
 - » National Fire Industry Association Queensland Inc.
- The QBCC Assistant Commissioner is also a member of the STC, as a representative of the QBCC.

WHO DOES WHAT – THE QBCC AND LOCAL GOVERNMENT AUTHORITIES

The QBCC and LGAs share a responsibility for monitoring and enforcing compliance with the *Plumbing and Drainage Act* in Queensland.



The QBCC

The QBCC is responsible for administering Queensland's plumbing and drainage licensing system and the notifiable work system, as well as regulating licensees and investigating unlicensed work.

The QBCC investigates complaints about plumbing and drainage work that has been carried out, either by licensed or unlicensed persons. If you would like to make a complaint about a person who has carried out plumbing and drainage work on your property, you can do so online at qbcc.qld.gov.au.

Local Government Authorities

LGAs appoint inspectors to conduct inspections of plumbing and drainage work to ensure the work complies with relevant regulations.

LGAs assess applications submitted in relation to new plumbing and drainage work. For example, when a new residential house is being built, the LGA issues permits to licensees to enable them to do the work, then inspects the work at different stages of construction. Once the final inspection is completed and the plumbing inspector is satisfied with the work, the plumbing inspector issues a compliance certificate.

LGAs may inspect notifiable work for compliance and, similar to the QBCC, they are able to conduct investigations about defective plumbing and drainage work. LGAs may also audit a percentage of notifiable work performed in the area.

If you would like to make a complaint about plumbing work that you believe may be defective, you can contact the LGA to request an inspection of the work. You can also report defective or non-compliant plumbing and drainage work to the QBCC.

Please be aware, LGAs can request and charge for the re-inspection of work.

WATER AND DRAINAGE TIPS FOR HOME OWNERS

The simplest and most effective way to ensure that water and drainage systems are compliant with regulations is to use a QBCC-licensed plumbing and drainage contractor.

By engaging an appropriately licensed tradesperson, you reduce unnecessary risks to your family's health and safety when it comes to plumbing and drainage issues around your home. This booklet will step you through what to do and what plumbing and drainage matters you need to be aware of around your home.

Choose a licensed contractor

When do you need a licensed plumber?

In Queensland, all regulated plumbing and drainage work must be carried out by an appropriately licensed tradesperson. In fact, there is only a limited amount of work related to plumbing and drainage that can be done around the home without needing a licence.

Changing a shower head, replacing a domestic water filter, replacing a jumper valve or washer in a tap, and replacing a drop valve washer, float valve washer or suction cup rubber in a water closet, are all examples of plumbing work that can be done without holding a plumber's licence. You can also replace caps to ground level inspection openings of a sanitary drain and maintain an above or below ground irrigation system for the disposal of effluent from a household waste water treatment plant or greywater use facility. Work on any other part of the plumbing and drainage system must be performed by an appropriately licensed person (for example, this includes replacing a tap).

When it comes to plumbing and drainage, you should always engage a licensed contractor. As a home owner you are legally responsible under the *Plumbing and Drainage Act* for taking all reasonable steps to ensure the plumbing and drainage associated with your property complies with the law. The simplest way to achieve this is to use an appropriately licensed person.

You can find a licensed plumbing contractor using the QBCC's **free licensee search** at qbcc.qld.gov.au. You should also ask to see their licence card.

A person must hold an occupational licence in order to perform plumbing and drainage work in Queensland, and in order to contract for plumbing and drainage work the person must also hold a plumbing and drainage contractor licence. Both licence types are issued by the QBCC.

Notifiable work

Notifiable work is a type of plumbing and drainage work which is performed in existing buildings, such as major bathroom or kitchen renovations, replacement of hot water heaters or temperature control devices, or changes to pipework.

Notifiable work can be performed without needing local government permits or inspections, saving time and money for home owners. When a plumber or drainer completes notifiable work, they must simply lodge a Form 4 to the QBCC within 10 business days.

What is a Form 4?

A Form 4 is a notice to the QBCC that notifiable work has been performed at a property. The Form 4 contains information about who performed the work, what work was performed and the address where the work was undertaken.

The licensed contractor is responsible for submitting the Form 4 to the QBCC and paying the relevant fee to the QBCC. The contractor may pass the cost of lodging the Form 4, including any administrative costs, on to the property owner.

Who gets a copy of the Form 4?

The person providing the Form 4 to the QBCC must also give a copy of the notice to either the owner of the premises where the work was carried out, or the person/entity that engaged the person providing the Form 4.

An example: The home owner engages a builder to build an extension on the dwelling which includes a bathroom. The builder employs a licensed plumber to perform the plumbing and drainage work. On completion of the work, the plumber lodges a Form 4 with the QBCC and must also provide a copy of the notice to the builder.

If you are the owner of a property where notifiable work has been performed, you may contact the QBCC to access a copy of the Form 4.

An LGA can also access Form 4 data, in order to maintain plumbing and drainage records for properties within its area. The LGA may also decide to audit a percentage of the work to ensure it complies with Australian Standards.



Note:

NOTIFIABLE WORK

is a type of plumbing and drainage work which is performed in existing buildings, such as major bathroom or kitchen renovations, replacement of hot water heaters or temperature control devices, or changes to pipework.

If an LGA decides to audit notifiable work, it will contact the home owner to seek permission to enter the property to undertake an inspection.



Watermark certification and non-compliant plumbing products

Most plumbing and drainage products must be certified and authorised for use in plumbing and drainage installations.

Products are assessed by certified bodies who evaluate and certify the product against relevant product specifications or standards, with products that achieve certification being given a WaterMark certification. All products given a WaterMark certification must be marked with a trademark WaterMark symbol on the product itself.

It is also important that the plumbing and drainage products selected are fit for the purpose for which they are intended to be used.

For more information on products that are authorised for installation in plumbing and drainage systems, including a list of products that do not require certification, visit www.abcb.gov.au

Temperature control devices

Temperature control devices are designed to limit the temperature of heated water. This is important to prevent scalding, particularly for those who may be vulnerable, such as young children, the elderly and people with a disability.

These days whenever a hot water system is replaced or a new one installed, the law requires the installation to be brought up to standard, which may include the installation of the temperature control device. It may also include things such as the correct lagging and termination point for the overflow. It is important to keep the temperature of the water at the correct level to prevent multiplication of Legionella bacteria. Talk to your plumber about having a temperature control device installed in your home.

Temperature control devices require routine maintenance and performance testing. It is important to remember that tempering valves, which are a type of temperature control device, need to be serviced regularly in line with manufacturer's instructions. Another commonly used temperature control device is a thermostatic mixing valve (TMV), which must be serviced by a licensed plumber who also holds the appropriate endorsement.

Hot water systems

Under the *Plumbing and Drainage Act*, the owner of the premises must take all reasonable steps to ensure all plumbing and drainage on the premises is kept in good condition and operates properly.

Home owners should follow manufacturer's recommendations when it comes to servicing their hot water systems.

It is generally recommended for hot water systems to be serviced every five years by an appropriately licensed person. Where the source water for the system is not a potable, reticulated source, your system may need to be serviced more regularly. Examples of this includes systems reliant on bore water or rainwater. Please refer to the

owner's manual for your system's servicing requirements.

Furthermore, if a home owner has a solar hot water system or heat pump hot water system installed, the licensed plumber who installs it must hold an endorsement on their licence to do this type of work. The endorsement can be found on the reverse of the licensee's occupational licence card.

Most licensed plumbers installing hot water systems will remind occupants to activate the temperature pressure-relief valve at regular intervals to maintain proper functioning of the valve, and remove metal ions that may build up in the water close to the valve. While home owners and tenants can operate the temperature pressure-relief valve themselves, care must be taken to avoid scalding and to ensure the valve is closed correctly after operation.

Legionella



Legionella bacteria are found naturally in the environment and are particularly associated with water. They thrive in warm water and in warm damp places. Legionella bacteria and micro-organisms that host the bacteria can attach to the internal surfaces of water pipes or other plumbing infrastructure. If inhaled, Legionella can cause a range of diseases in humans. These are called legionellosis and include the conditions known as Legionnaires' disease and the less serious condition of Pontiac fever. Those most at risk of legionellosis infection are newborn babies, the elderly and people with a compromised immune system.

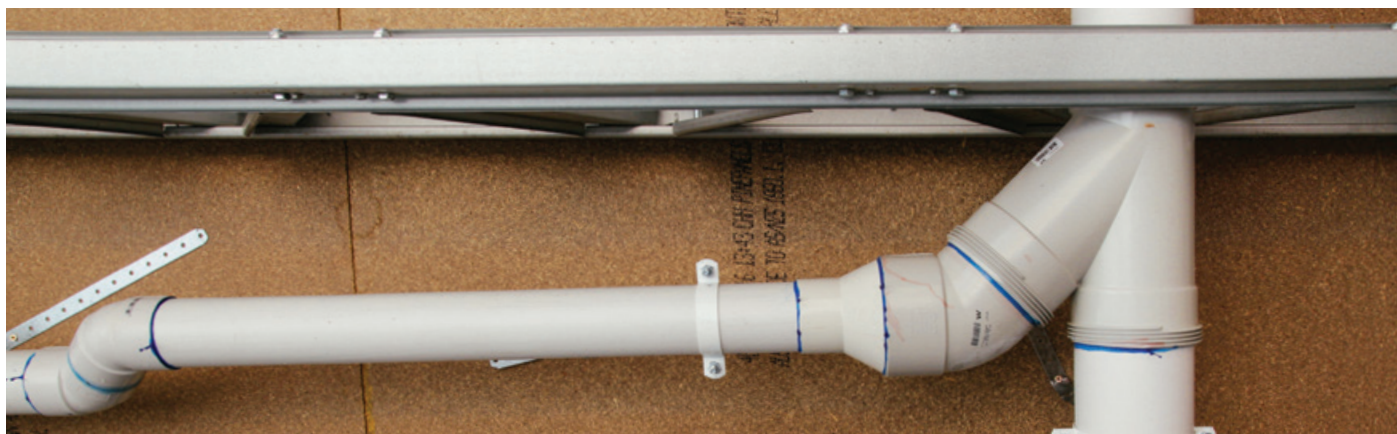
While there are various risks associated with exposure to Legionella, home owners can reduce the likelihood of exposure by ensuring:

- the temperature of heated water in a storage hot water heater is controlled to achieve a minimum of 60°C over a 24-hour period;
- solar hot water heaters with a booster remain on and operating correctly, particularly during periods of low sun exposure; and
- all fixtures within the home are frequently used or flushed, as stagnated water can increase the growth of Legionella.

Lead and other contaminants

Exposure to lead may result in significant health effects, particularly for children and pregnant women.

AS/NZS 3500 Part 1 effectively prohibits the use of lead-



based solders providing that soft solders shall not contain more than 0.1% lead by weight; however up until 1989, the use of lead-based solder on brass fitting and copper pipes was common in plumbing systems across Australia.

Home owners should consider the age and deterioration of water service pipes at their properties, and it is important to monitor the condition of your pipes where possible. Flushing of the taps before use could also help minimise exposure to lead.

Hot water systems may also produce levels of lead or other heavy metals, so using hot water from your taps for drinking or cooking purposes should be avoided.

If you are concerned about your plumbing system, you may consider having a water filtration system installed that will remove heavy metals, including lead.

Rainwater tanks and drinking water quality

Rainwater should only be used for drinking, personal hygiene and food preparation where there is no access to reticulated (or 'town') water. This is because town water provides the safest and most reliable source of drinking water.

Where roof-harvested rainwater is relied upon as the sole supply of drinking (potable) water there will generally be very little health risk for most people provided that the rainwater collection and storage system is well maintained. However, there are some members of the community for whom rainwater could pose health risks, including infants, the elderly and those with compromised immune systems. Anyone with concerns about the quality of their rainwater should install a suitable treatment system.

Roof-harvested rainwater may be used without further treatment for flushing toilets, the cold water laundry tap and for watering gardens and lawns as these uses generally present a low risk of disease.

Before installing a rainwater tank, please contact your LGA for information on local planning guidelines or policies.

On-site sewerage facilities

An on-site sewerage facility (OSSF) provides treatment and disposal of waste water from properties not connected to the sewerage infrastructure. Examples include on-site treatment plants which use mechanical, biological and filtration methods to treat waste before discharging through either above or below ground

irrigation systems; or septic systems, which use biological methods to treat waste water before discharging through a below ground system.

Maintenance

It is important for home owners to take proper care of their OSSF and ensure it is regularly maintained. Maintenance of the facility will ensure community safety and reduce the risk of polluting our valuable waterways.

On-site treatment plants are required to be routinely serviced in line with the conditions of the approval given for the plant design under the *Plumbing and Drainage Act*.

Typically, on-site treatment plants must be serviced every three months and must be serviced by a licensed person. While septic systems do not require a routine service, it is important to regularly monitor the system for obvious signs of failure, such as saturated ground where the disposal area is located. Sludge levels in the tank should also be checked regularly to ensure that sludge does not enter into the disposal area.

Land application areas

All treatment plants will dispose of the treated waste water to a land application area. Land application areas are located with setback distances from buildings, boundaries, water sources or the like, to minimise any impact on the health and safety of residences and to reduce the risk of harm to the surrounding environment.

LGAs approve the location of land application areas, and you should not alter or change the application without further approval.

Special requirements

A plumber must have an endorsement on their licence to maintain OSSFs. Furthermore, when a plumber services an OSSF or greywater treatment plant, the licensee must:

- a. give the LGA a written report on the condition of the facility or plant within one month of servicing it; and
- b. give a copy of the report to the owner of the facility or plant as soon as practicable after servicing it.

A LGA must issue a compliance certificate for an OSSF. The owner of premises for which a compliance certificate has been given for compliance assessable work, including for a greywater use facility or an OSSF, must ensure all conditions of the certificate are complied with.

CONTACT US

For more information about plumbing and drainage matters or the STC, visit qbcc.qld.gov.au



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