

Rainwater tank plumbing guide

For plumbers and property owners

In Melbourne, water authorities like us at South East Water work hard to deliver safe, high quality drinking water. We also support plumbers and property owners with information and general requirements for installing alternative water supplies like rainwater tanks.

One of the ways we protect the quality of our drinking water supply is by placing requirements on the installation and plumbing of rainwater tanks. The relevant Australian Standards specify these requirements and the Plumbing Industry Commission (PIC) and water authorities enforce them to ensure the water supply continues to meet the high water quality standards set by the Department of Health.

Water quality

The Department of Health regulates drinking water quality through *Victoria's Safe Drinking Water Act 2003*. The requirements of the Act are based on the Australian Drinking Water Guidelines.

Where a reticulated drinking water supply is available, the Department of Health and South East Water do not recommend the use of rainwater for drinking or food preparation. Because the quality of rainwater is not as reliable as drinking water, in some areas where there is high pollution, the Department of Health may advise against the use of rainwater.

Rainwater collected from the roof can be used for a range of non-drinking purposes. Care should be taken to ensure that rainwater tanks are correctly connected and maintained to ensure their safe use.

Plumbing requirements

When installing a rainwater tank and connecting it to supply outlets within a property, the relevant Australian Standards, *AS/NZS 3500.1:2003, Part 1 Water services, Section 14* sets out the minimum plumbing industry standards for water supply systems from rainwater tanks.

Connection requirements

- Where rainwater is used to service an outlet for sanitary flushing (e.g. toilets), an automatic or manual interchange device that switches between rainwater and the reticulated drinking water supply must be installed. This ensures a continual supply of water is available.
- Rainwater tank installations must comply with *AS/NZS 3500.1:2003* and the containment backflow requirements of the local water authority.

- All piping systems delivering rainwater to taps, fixtures, outlets or appliances must be installed by an appropriately licensed plumber.
- An applicable plumbing alteration form shall be lodged with the water authority prior to work commencing (specific conditions may apply).

Backflow prevention requirements

Where rainwater is going to be used within the home for non-drinking uses, it is recommended that an interconnection is made with the drinking water supply.

The interconnection should be installed according to the following *AS/NZS 3500.1:2003* and containment backflow requirements:

- a) A backflow prevention containment device must be installed at the main water meter assembly (such as a dual check valve). This will protect the rainwater tank supply from passing backwards through the water meter and entering the mains water supply.
- b) Additional zone or individual backflow prevention devices shall be provided to protect the drinking water supply within the property.
- c) An automatic or manual interchange device that switches between the use of the rainwater tank or the drinking water supply is recommended to be installed. This will ensure there is a constant supply of water for non-drinking uses when the rainwater tank supply is low.
- d) Where a partly or completely buried tank is to be installed, the potential for water contamination increases. A high hazard rated testable backflow prevention device must be installed to provide protection for the individual or zone hazard. The same degree of backflow protection is also required for containment protection.
- e) All containment testable backflow prevention devices must be registered with the water authority and commissioned prior to use. The devices must also be tested annually by a suitably qualified plumber. A copy of the test report shall be provided to the water authority.

Backflow prevention minimum requirements

Rainwater tank location	Containment at outlet of main water meter	Protection on the main supply line prior to connection to tank outlet line	No connection to a tank outlet
Buried	Testable device Reduced Pressure Zone Device (RPZD)	Testable device	No backflow prevention device required
Partly buried	Non-testable device	Testable device	No backflow prevention device required
Above ground	Non-testable device	Non-testable device	No backflow prevention device required

Note: Testable devices installed as containment protection require registration with the water authority and annual testing to ensure the effectiveness of the valve. Testing must be undertaken by an appropriately licensed plumber.

Compliance Certificate

A Compliance Certificate must be given to the person for whom the work was carried out within five days of completion of the work and the PIC notified that the compliance certificate has been given. A Compliance Certificate is a form that must be issued by licensed plumbers to certify that their plumbing work complies with all regulatory requirements and in accordance with AS/NZS 3500.1:2003.

Note: When claiming a rainwater tank rebate, a copy of the Compliance Certificate must be included in the documentation forwarded to the water authority.

Responsibilities

The water authority maintains:

- The property water meter, pipes and fittings from our water main through to the water meter, or to your property boundary or your boundary stop valve where there is no meter.

The property owner is responsible for maintaining:

- Any pipe works on the property side of the water meter, at their cost. This includes any testing of testable backflow devices installed, which the property owner needs to have checked and tested by a qualified backflow prevention tester annually.

Glossary

AS/NZS 3500.1:2003 Plumbing and drainage Part 1: Water services: The Australian and New Zealand Plumbing and Drainage Standard.

Backflow: The unplanned reverse flow of water or mixtures of water and contaminants into the drinking water supply system.

Backflow Prevention Containment Device: A device installed at the outlet of the property's main water meter to prevent any potential backflow or contamination from entering the community's water supply. The home owner is responsible for its maintenance.

Drinking water: Water that is suitable for human consumption, food preparation, utensil washing and oral hygiene.

Dual check valve: A low hazard non-testable backflow prevention device.

Fixture: A piece of equipment specifically designed so that its use results in discharge to the sanitary plumbing system.

Interconnection: Any connection or arrangement where piping of drinking water / mains water is connected to a non-drinking water source. Without appropriate backflow prevention devices installed, an interconnection may lead to contamination of the drinking water.

Licensed or registered plumber: A licensed plumber may undertake work in any class of plumbing for which they are licensed, may supervise other plumbers (registered or licensed) or plumbing apprentices carrying out that class of plumbing work. They may also issue Compliance Certificates for that class of work.

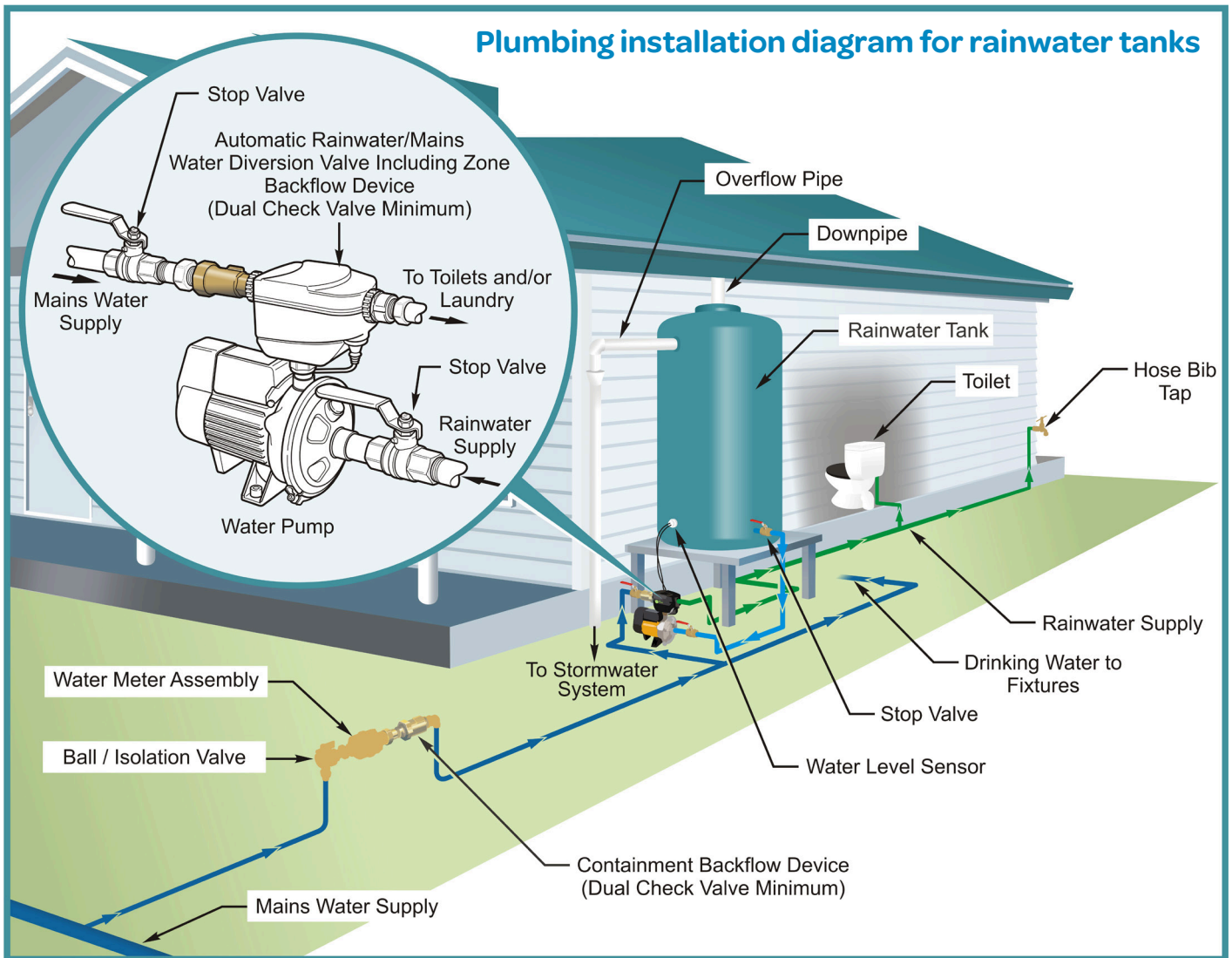
A registered plumber may individually undertake work in any class of plumbing work for which they are registered. However, if the work requires a Compliance Certificate to be issued, they may only undertake that work under the supervision of a licensed plumber. They cannot issue a Compliance Certificate.

Rainwater tank: A storage vessel purpose-designed to collect rainfall runoff from roofs.

Reduced Zone Pressure Device: A high hazard backflow prevention device to protect the household's drinking water from any backflow or contamination.

Testable device: A medium or high hazard backflow prevention device that is required to be tested annually.

Plumbing installation diagram for rainwater tanks



Further information

Plumbers and property owners should seek expert advice and assistance with the installation and connection of rainwater tanks to ensure that they meet the required standards. The following contacts can offer assistance:

South East Water

Visit southeastwater.com.au or call **9552 3770** for Metering and Servicing Guidelines, information and advice, Backflow Prevention Policy.

Victorian Department of Health

Visit health.vic.gov.au/environment/water for water quality management and rainwater use guidelines.

Local Councils

Visit dpcd.vic.gov.au/localgovernment for plumbing requirements for new residential buildings or alterations.

Plumbing Industry Commission Victoria

Visit pic.vic.gov.au for plumbing regulatory requirements.

Contact us

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