

# Backflow Prevention and the Safety of Our Drinking Water

## Information sheet

### What is Backflow?

Backflow occurs when water flows opposite to its normal or intended direction.

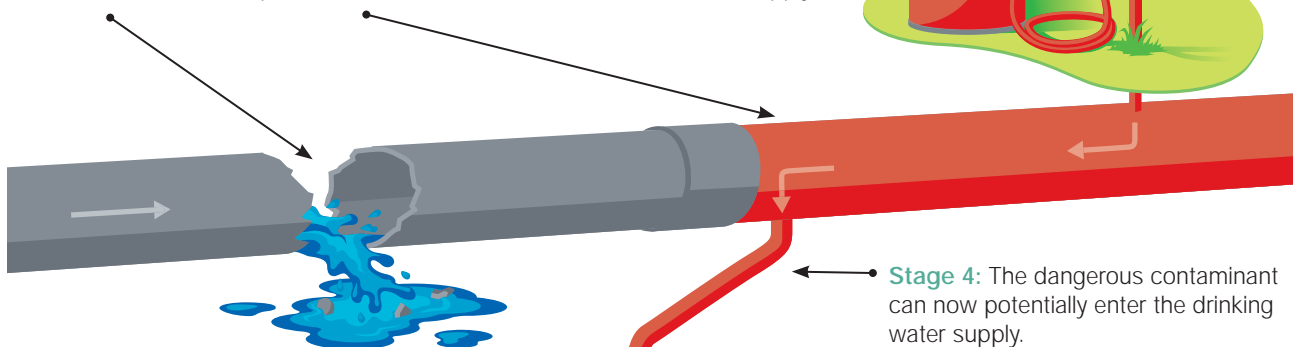
Under normal conditions water flows in one direction, from the main water system into the pipes of your property. When the normal flow of water is reversed; that is, from the pipes on the property back into the water system, it is referred to as backflow.

### How backflow can happen

**Stage 1:** Water pressure is reduced because of a break in the water main.

**Stage 2:** Reverse pressure is created by a drop in water pressure.

**Stage 3:** A hose left in a bucket or tank to mix chemicals such as fertiliser now has the potential to contaminate the water supply.



**Stage 4:** The dangerous contaminant can now potentially enter the drinking water supply.



Backflow can occur when water pressure to your property is not maintained.

Water pressure can be affected when:

- There is a break in the water main which supplies your property
- Water is being pumped from the main water supply during a fire
- You are using water at a higher pressure than the pressure supplied by City West Water
- Heavy water use in the main water system reduces water pressure to your property.

Backflow can result in a public health risk if it allows pollutants or contaminants such as chemicals to enter the drinking water supply from your property.

To prevent this, a suitable backflow prevention device must be installed at the meter for all properties connected to the mains water supply. A properly working and maintained backflow device will ensure water flows safely by trapping water that begins to flow in the wrong direction.

## Testable Backflow Prevention Devices

There are a number of different backflow prevention devices available. The type of device required by City West Water will be assessed based on the risk rating of your property. The most common types of backflow devices used are:

### High Risk –

Reduced Pressure Zone Device (must be tested annually)

### Medium Risk –

Double Check Valve (must be tested annually)

### Low Risk –

Dual Check Valve (non-testable)

If you do not currently have a backflow device installed on your property your licensed backflow plumber can recommend the appropriate backflow prevention device(s) to be installed. These devices need to conform to Australian Standards AS 2845 and AS 3500.1.

All testable backflow devices must be registered with City West Water and tested at least annually. The test results should be forwarded to City West Water within five working days of testing being carried out.

Your accredited plumber will advise of any additional backflow devices required to protect the drinking water supply within your property.



**Example 1:** High Risk Reduced Pressure Zone Device

In this case, we require both the serial number and the test results forwarded to City West Water as outlined on the attached letter.

## Dual Check Valves



Dual Check Valve  
(non testable)

### Example of low risk, non testable Dual Check Valve

If you have this type of Check Valve you will need to complete the attached letter advising City West Water that a Dual Check Valve is installed. However, no serial number or test results are required by City West Water.

**Example 2:** High Risk Reduced Pressure Zone Device

In this case, we require both the serial number and the test results forwarded to City West Water as outlined on the attached letter.



**Example 3:** High Risk Reduced Pressure Zone Device

In this case, we require both the serial number and the test results forwarded to City West Water as outlined on the attached letter.



**Example 4:** Medium Risk Double Check Valve

In this case, we require both the serial number and the test results forwarded to City West Water as outlined on the attached letter.



Dual Check Valve  
(non testable)

**Example of low risk, non testable Dual Check Valve**

If you have this type of Check Valve you will need to complete the attached letter advising City West Water that a Dual Check Valve is installed. However, no serial number or test results are required by City West Water.



## What do I do from here?



**Example 5:** The serial number of a reduced pressure zone device.

Please answer the questions on the letter and return it to City West Water in the enclosed reply paid envelope for auditing purposes.

When completing the letter please ensure you have entered the backflow prevention device's serial number (note: for all HIGH and MEDIUM risk backflow devices only). Please refer to Example 5 as an indication of where to find the

serial number. The location of the serial number can vary depending on the type of device installed.

If your site is assessed as LOW risk please advise as per the option on the attached letter.

If you do not have, or are unsure if you have, a backflow prevention device please read "Responsibility of the property owner" below.

## Responsibility of the Property Owner

City West Water requires property owners to have installed a backflow prevention device meeting the requirements of the Australian Standards for Plumbing & Drainage (AS/NZS 3500.1:2003) and Water Supply – Mechanical Backflow Prevention Devices (AS 2845 – 1986).

The backflow device must be installed by a plumber licensed for the work by the Plumbing Industry Commission. Under the Water Industry Regulations 2006, it is an offence if you fail to have one installed after being requested by us to do so.

Installing a backflow prevention device ensures that water from your property cannot be drawn back into the main drinking water supply. You can prevent backflow by installing a suitable backflow device.

### Risk Rating

Properties are rated into three degrees of risk:

- **High Risk** sites are properties that use or produce products of a toxic or bacterial nature that may cause death if leaked into the main water supply. Examples of high risk sites are chemical plants and hospitals.
- **Medium Risk** sites can endanger health if backflow occurs. Examples of medium risk sites are caravan parks and public swimming pools.
- **Low Risk** sites could result in a nuisance but not endanger health if contamination occurs. An example is most residential homes.

The risk rating of your property will determine what type of device needs to be installed to stop contamination from flowing into the main water supply. Licensed backflow plumbers can inspect your premises and advise the appropriate backflow prevention device(s) required for your site.

All costs associated with the installation, maintenance and testing of the backflow device are the responsibility of the property owner.

Note the device must be commissioned and tested by an appropriately licensed backflow plumber. To arrange the assessment or installation of a backflow device you can search for a licensed plumber with backflow accreditation in the Yellow Pages. Alternatively you can contact City West Water on 131 691.

City West Water will be auditing and inspecting properties to ensure the safety of our drinking water.

For more information on City West Water's backflow prevention policy and guidelines please visit [www.citywestwater.com.au/business/836.htm](http://www.citywestwater.com.au/business/836.htm)

Test reports or general backflow correspondence can be sent to:

Backflow Prevention Program  
City West Water  
Locked Bag 350  
SUNSHINE VIC 3020

Alternatively you may email backflow correspondence to: [backflow@citywestwater.com.au](mailto:backflow@citywestwater.com.au) or fax to 9313 8126.

This is a notice under regulation 11(1) of the Water Industry Regulations 2006 (Vic).

يمكن قراءة صفحة المعلومات هذه باللغة العربية في:

这信息散页可以在下列网址用中文来阅读 :

Quý vị có thể đọc tờ thông tin này bằng tiếng Việt tại:

[www.citywestwater.com.au/business/836.htm](http://www.citywestwater.com.au/business/836.htm)

**Account and general enquiries:** 131 691  
**Faults and emergencies:** 13WATER (1392837)  
**Interpreter service:** 131 450  
**Internet:** [www.citywestwater.com.au](http://www.citywestwater.com.au)  
**Email:** [enquiries@citywestwater.com.au](mailto:enquiries@citywestwater.com.au)

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