

## What does a backflow preventer do?

A backflow preventer is a device installed on service connection/s typically at, or close to the property boundary. These devices only allow water to flow in one direction, towards your property.

The type of device required depends on the nature of the activities carried out within the property, which determines the corresponding risk to the public water supply should backflow occur.

## Your obligations and responsibilities

The Building Act 2004 requires all buildings to have a safe and adequate water supply. If there is any likelihood of contamination from a cross connection, an approved backflow prevention device is required to eliminate it, ensuring that all end users are protected against contaminated water.

All backflow devices must be inspected and tested annually, by an Independently Qualified Person (IQP).

The Health Act 1956, and the Health (Drinking Water) Amendment Act 2007, section 69ZZZ "Protecting water supplies from risk of backflow", authorises the water supplier to enforce backflow prevention, whether the hazard is new or historic, and recover all reasonable costs incurred for testing, survey, and retrofitting devices.

### Specific responsibilities for water suppliers and property owners to prevent backflow are listed below:

**Developers:** All developers must assess the risk of a backflow hazard when applying for a new connection, or if there is a change of property use. All new connections must have backflow prevention included in the installation.

**Property Owners:** It is the property owner's responsibility to ensure that the correct boundary device/s is/are installed and maintained at their water connection/s. Boundary devices must be tested annually and results submitted to the relevant Territorial Authority.

Wellington Water, on behalf of its client councils, reserves the right to arrange rectification or upgrade of a faulty device to reduce risk to the water supply network, if necessary. Reasonable costs for this work will be recovered from the property owner.

## What sort of device should I have in place relative to the nature of my business?

It is important that a suitable boundary backflow prevention device is in place according to the degree of risk of backflow from your property and the activities that you carry out within it.

## Three degrees of risk are used to classify properties in order to determine the type of backflow device required.

1. **High Risk sites** are properties that use or produce products of a toxic or bacterial nature that may cause death or serious illness if leaked into the main water supply. Examples of high risk sites are hospitals, mortuaries, chemical plants, laboratories, cooling towers, hairdressing salons, food processing, car and factory washing facilities using chemical dispensers and injectors, dental clinics and other manufacturing plants. Backflow prevention device: Reduced pressure zone device (must be tested annually).
2. **Medium Risk sites** can endanger health if backflow occurs. Examples of medium risk sites are public swimming pools, garden irrigation systems, drink dispensers with carbonators, beauty salons and hairdressers, commercial laundries and rainwater tanks connected to household plumbing. Backflow prevention device: Double check valve (must be tested annually).
3. **Low Risk sites** are properties that could cause a nuisance by colour, odour, or taste but do not endanger health. An example of a low risk site is a residential home with only domestic water use. Backflow prevention device: Air gap separation or hose vacuum break dual check valve (these are typically non-testable devices; however they require certification that have been installed correctly). If you are unsure what device your property requires please contact your local city council with details of your business and the type of activities undertaken.

## How can I get some assistance to check my device?

You can engage an Independent Qualified Person (IQP) to check your device. IQP's can be found using an online search. If you need help finding an IQP, please contact your local council who will assist.

## What happens if I don't have a device in place, or the existing device is not adequate?

If you do not currently have a backflow device installed, you will need to arrange for installation of an appropriate device as soon as possible.

Wellington Water may arrange to have a backflow preventer installed at your property and have reasonable costs for this work recovered from you, if necessary.

# Backflow Prevention

Safeguarding our Drinking Water through Backflow Prevention

## Safe and healthy drinking water

On behalf of our client councils, Wellington Water is committed to providing safe and healthy drinking water to everyone in the communities we serve. To help us do this we need you to make sure that the activities that you undertake on a daily basis cannot cause harm by contaminating the water supply. You can do this by ensuring that you have appropriate backflow prevention devices in place to ensure backflow cannot occur.

## What is backflow?

When water enters your property from the public water supply network, it should only ever flow in one direction i.e. into your business. Backflow is when water or other substances flow backwards into the public water supply network.

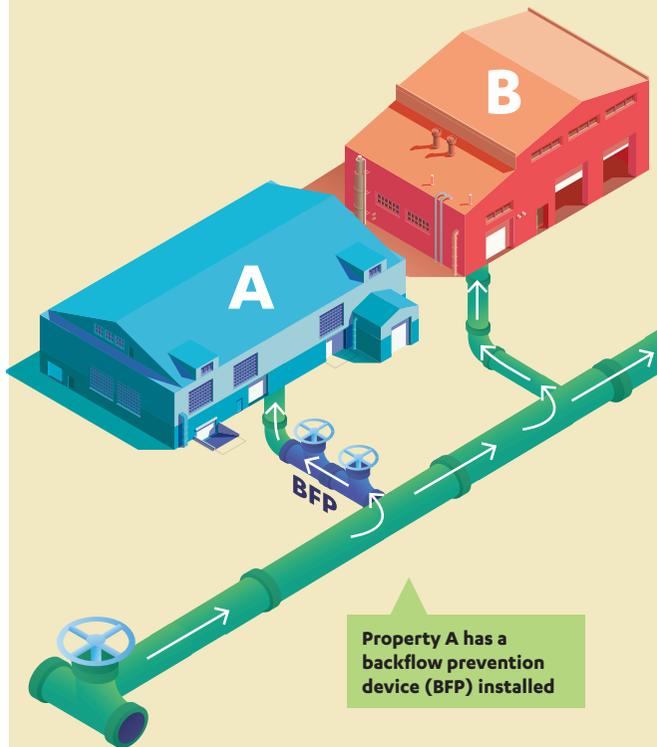
## How does backflow happen?

Backflow can happen when the water pressure in the public network drops, for example, if there is a break in the main water pipeline or when a fire hydrant is opened for use. As pressure is lost during these events, water is no longer being forced towards your property causing possible contaminated water from your property to flow in the opposite direction, back into the public supply network. When this happens, the public water supply can be contaminated, potentially causing serious illness or even death.

1

### Normal Pressure

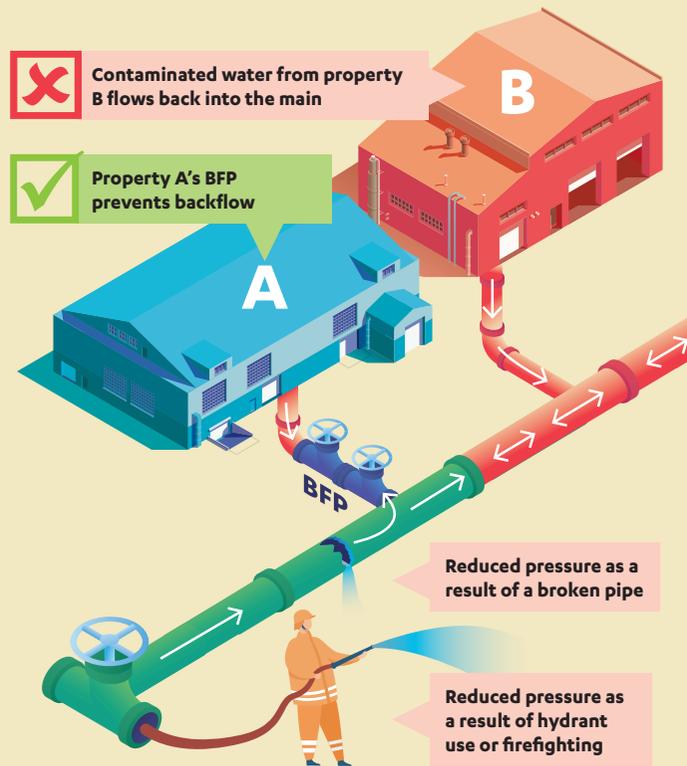
Water flows from the main into properties and out of taps. A and B are properties with water connected to industrial chemicals or another potential source of drinking water contamination.



2

### Loss of pressure in water mains causes backflow

High demand such as heavy use by the fire service or due to a watermain break. Pressure in the main drops and water, along with contaminants, are drawn back into the main.



3

Contaminated water comes out of the mains supply in another location.

