How to prevent backflow

To protect our water supply, property owners have a responsibility to install devices and implement measures to stop the backflow of water into the public water supply. It is the owner's responsibility to pay for backflow protection. This is in accordance with:

- Hurunui District Council Three Waters Services Bylaw and Three Waters Services Policy 2019
- Hurunui District Council Backflow Prevention Policy
- NZ Building Code
- Health Act 1956
- Drinking-water Standards for New Zealand 2005 (revised 2018)

Sometimes the level of protection provided at the water connection may not be enough - especially if certain activities such as spa baths, swimming pools or dialysis machines exist on the property. Protection within the premise must be carried out under section G12 of the New Zealand Building Act 2004.

To provide adequate protection, there are four levels of protection that should be provided according to the potential risk at the property. Businesses, especially those that use chemicals, create a high risk to the water supply and therefore the need for backflow prevention is even greater.

Always call a qualified plumber to assist

Reference	Event	Comment
D2.4.2	High-risk situations: Premises with an alternative non-potable water supply. Premises where inspection is restricted. Sanitary fixtures and systems. Medical, dental, hospital, mortuary or veterinary equipment. Piers, marinas, wharves and waterfront equipment and including ships' water supplies. Meatworks and abattoirs. Sewage treatment plants. Drainage systems. Boilers. Cooling towers and air conditioners.	Minimum recommended level of protection: Reduced pressure backflow-prevention device.‡

Reference	Event	Comment
	Equipment, tanks, fixed hoses, hose attachment outlets, appliances and other forms of cross connection within: car and plant washing facilities dry-cleaning premises photographic processing laboratories funeral parlours metal finishing plants weed or pest spraying facilities mixing of chemicals, pesticides nurseries chemical plants, any premises using, processing or manufacturing toxic chemicals dental surgeries chemical laboratories pathology laboratories universities and research facilities timber treatment facilities water treatment facilities vehicular sewage disposal facilities.	

‡ Air gaps provide a high level of protection, and are also an acceptable form of protection in these instances, so long as they are properly maintained.

Reference	Event	Comment
	Medium-risk situations: Premises with alternative potable water supply. Premises with grey water reuse systems, or where water is recycled for cooling or other purposes. Premises with reticulated and disinfected water systems. Public and private swimming pools, and spa pools. Food and beverage processing plants. Irrigation systems. Commercial laundry facilities. Premises with rainwater tanks. Hairdressing premises. Automatic fire sprinkler systems.	Minimum recommended level of protection: Reduced pressure backflow prevention device.‡ Testable double check valve.‡

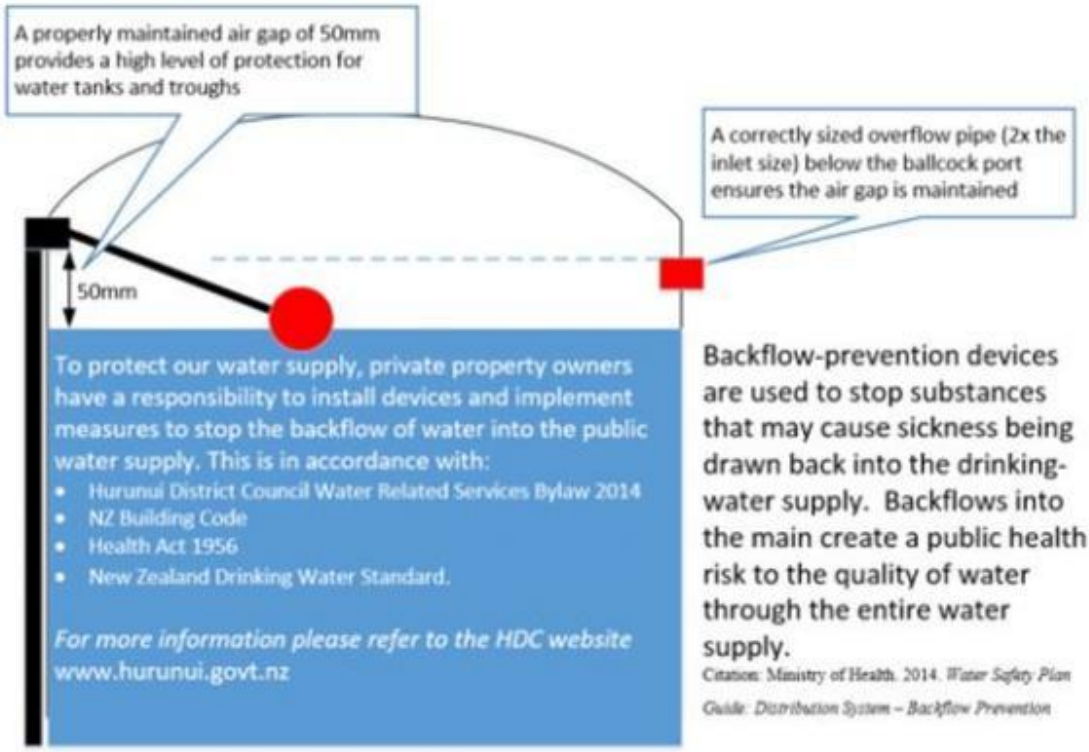
Reference	Event	Comment
	Equipment tanks, fixed hoses, hose attachment outlets, appliances and other forms of cross connection within industrial or commercial facilities where toxic or hazardous chemicals are not used.	
	Low-risk situations: Premises used for the storage or preparation of food or beverages. Drink dispensers. Hose taps for fixed domestic irrigation systems.	Minimum recommended level of protection: Testable double check valve. 50mm Air gap. Hose connector vacuum breaker (for hose taps).
	Very low-risk situations: All household units (ie, residences).	Minimum recommended level of protection. Non-testable dual check valve (part of meter assembly maintained by water supplier). 50mm Air gap.

Citation: Ministry of Health. 2014. Water Safety Plan Guide: Distribution System – Backflow Prevention

Note: Water will not be provided until the backflow preventer is installed and a commissioning test has been carried out. The device must be certified by a suitably qualified person and a certificate must be sent to the Hurunui District Council for code compliance.

What you need to do

- A building consent from the Council must be obtained before any medium or high risk backflow prevention device(s) are installed.
- A qualified person with Plumbing Certification must install backflow prevention devices and all testing of the device must be carried out by an Independently Qualified Person on backflow. Independently Qualified People are registered people who have been recognised as having achieved skills and experience in a particular field.
- Backflow prevention devices have to be tested immediately after installation to attain code compliance for the building consent. Devices must then be tested annually to ensure they are working correctly and provide continuing protection.
- Testing reports are to be retained by the owner and a copy is to be forwarded to Hurunui District Council to ensure the premise has a current Building Warrant of Fitness.
- The property owner is responsible for the costs of installation, maintenance and testing of any backflow prevention device they install. Costs for installation can vary widely and depend on the:
    - degree of protection required (risk level)
    - size of the device
    - complexity of the installation.



To protect our water supply, private property owners have a responsibility to install devices and implement measures to stop the backflow of water into the public water supply. This is in accordance with:

- Hurunui District Council Water Related Services Bylaw 2014
- NZ Building Code
- Health Act 1956
- New Zealand Drinking Water Standard.

For more information please refer to the HDC website www.hurunui.govt.nz

Backflow-prevention devices are used to stop substances that may cause sickness being drawn back into the drinking-water supply. Backflows into the main create a public health risk to the quality of water through the entire water supply.

Citation: Ministry of Health. 2014. *Water Safety Plan Guide: Distribution System – Backflow Prevention*