



Backflow Prevention Policy

Effective 1 December 2024



Background

Backflow is the term given to the unintended flow of water from a customer's connection back into the public drinking water supply owned and administered by Invercargill City Council (or Council). A backflow event can occur due to back-pressure or back-siphonage within a water supply system.

Council is a water supplier for Invercargill City District. Council is required to implement a backflow prevention programme under the Water Services Act 2021 (the Act) and Taumata Arowai 's Drinking Water Quality Assurance Rules 2022 to protect Council's water supply against the risk of contamination. The Building Code clause G12, also requires Council to ensure the protection of its water supply from contamination that can cause death, injury and / or illness to the public.

Purpose

This policy outlines Council's commitment to the protection of its drinking water supply and how this protection will be achieved to meet the requirements of the Act, the compliance to the Drinking Water Quality Assurance Rules 2022, the Building Act 2004 and Council's Water Supply Bylaw.

Scope

This policy applies to all water supplies owned, operated and/or managed by Council and to those properties, companies and/or people who are supplied by or take water from Council's water supply, within Invercargill City District.



Legislative compliance

All backflow prevention activities must comply with:

- the Water Services Act 2021;
- the Drinking Water Quality Assurance Rules 2022;
- the Building Act 2004;
- the New Zealand Building Code; and
- Council's Water Supply Bylaw.

Definition

Air gap: This is a permanent separation, measured vertically, between the lowest point of the water supply outlet and the flood level of the equipment, tank or fixture into which the outlet discharges. The gap is required to be the greater of 25mm or twice the supply pipe diameter. A compliant air gap may be used instead of a boundary backflow prevention device. An air gap is registered with the Council when it is there for the purposes of boundary backflow prevention.

Backflow is an unintended condition which can allow drawn water to flow back into a water supply creating a pathway for contaminated or used water to enter the clean system. This can be caused by back pressure or back siphonage.



Backflow prevention device means a valve installed on a water supply to prevent backflow from occurring and safeguard the water supply. These include:

- dual check valves (non- testable);
- double check valves (testable); and
- reduced pressure zone devices (testable).

Back pressure refers to a situation where the pressure in the downstream (customer's) plumbing is greater than the pressure in the Council's water supply resulting in a reversal of normal flow direction and thereby possible contamination of water supply.

Back siphonage refers to a situation where the pressure in the Council's water supply is less than the pressure in the downstream (customer's) plumbing. This negative pressure results in a reversal of normal flow direction and potential contamination of water supply.

Backflow tester means any person(s) who is certified by the South Island IQP panel to test, repair, and maintain any backflow prevention devices.

Boundary means a line marking the outer limits of an area that may be a private property or a public place, comprising the entire or whole of the boundary and delimits and includes:

- Cross-lease subdivision, the line marking the limits of the exclusive covenant area, and/ or
- Unit title subdivision, the line marking the limits of the accessory unit associated with a particular principal unit.

Booster pump is a device used to increase water pressure as a way to increase flow.

Building Warrant of Fitness is a building owner's annual statement confirming all specified systems (a backflow prevention device is a specified system) have been tested and are operating satisfactorily. This is required under the Building Act 2004.



Customer refers to the owner or occupier of the property who is responsible for the purchasing and/or use of water supplied.

Council means the Invercargill City Council.

G12 - Water Supplies is the New Zealand Building Code clause which relates to the safe supply, storage, reticulation and delivery of hot and cold water.

Independent qualified person (IQP) is a person approved by the South Island IQP panel (of which the ICC is a member of) to carry out testing of specified systems such as backflow prevention devices.

Owner(s) means the registered proprietor of the land.

Potable means water that is safe to drink and that complies with the drinking water standards.

Private property means any parcel of land and/or building capable of being transferred, sold, rented, leased, or otherwise disposed of separately from any other parcel of land and/or building(s).

Public place means a place:

- that is under the control of Council; and/or
- that is open to, or being used by, the public, whether or not there is a charge for admission; and
- includes a road, whether or not the road is under the control of Council and
- any part of a public place.



Residential property is any property within a residential zone as defined under Council's district plan purposed around residential activities, recognising that there may be some non-residential activities associated with it.

Risk hazard categories are used to categorise individual properties in terms of the threat they pose to Council water supply should a backflow condition occur. This is based on things such as the use of the property, the use of chemicals and/or machinery on the property and any other factors which might contribute to their level of risk.

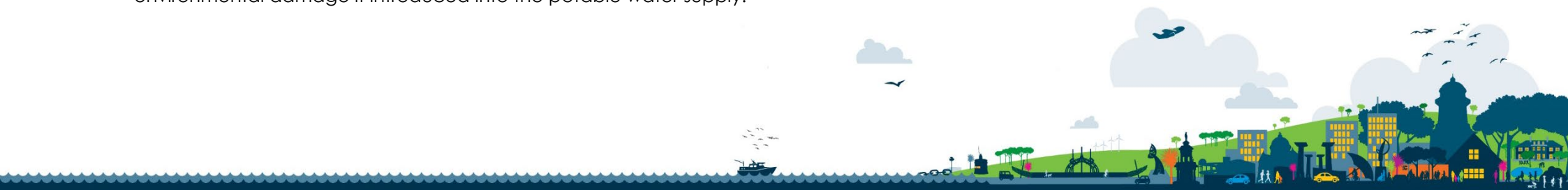
System designer for the purpose of this policy is a professional who specializes in creating systems to ensure the appropriate flow of water supply public places, private properties and residential properties in accordance with the Act, Drinking Water Quality Assurance Rules 2022, Building Act 2004 and Council's Water Supply Bylaw.

Taumata Arowai means Taumata Arowai – the Water Services Regulator established by section 8 of the Act of the Taumata Arowai – the Water Services Regulator Act 2020.

Water supply network means a network for reticulated distribution of potable water that is under the control of or maintained by Council.

Hazardous material are any substances that, if introduced into water supply through backflow, could pose a significant risk to health, safety, and the environment. These materials can contaminate potable water supply, making the water unsafe for consumption or use. These materials include but are not limited to chemicals, pharmaceuticals, industrial waste and by-products.

Toxic environment refers to conditions where the presence of hazardous material could result in severe health risks, contamination, and environmental damage if introduced into the potable water supply.



Council and Customer Responsibilities

Council is responsible for ensuring water supplies owned and administered by Council are protected against backflow. Council, where appropriate, will be responsible for installing backflow prevention devices, and / or requesting a customer(s) to install a boundary backflow prevention device (or a compliant air gap) to prevent any potential contamination of water supply from a backflow event.

A boundary backflow prevention device is required to protect Council's reticulated drinking water supply from contamination caused by a backflow event within a property. This will mean a backflow prevention device is required to be fitted to the water supply at the boundary. This is in addition to any existing point of use backflow prevention device which may be inside a building and is installed for the purposes of protecting building users.

Where there is considered to be a potential risk of backflow (as per Appendix 1) into water supply, Council may, under this policy:

- install a boundary backflow prevention device and require the customer to reimburse Council for the cost of installation, maintenance and ongoing testing of the device; or
- require the customer to install, maintain, and test a boundary backflow prevention device that incorporates a verifiable monitoring system in accordance with any requirements imposed by the Council.
- use a combination or any hybrid of the two options above so as to achieve suitable protection of its water supply and the ongoing testing and maintenance of boundary backflow prevention devices.

In addition to the requirements of this policy, the customer must also ensure that the requirements of the Building Act 2004 are complied with for their property. This includes:

- notifying Council in writing of any change in use of the property supplied;



- obtaining building consent for plumbing work, including the installation or removal of any backflow prevention devices located within the private property; and
- maintaining and testing any backflow prevention devices within the private property in accordance with the compliance schedule/building warrant of fitness.

Responsibilities specific to a customer

Where a customer owns the boundary backflow prevention device or registered air gap, the customer must take responsibility for ensuring that it remains fully operational at all times and is made available to be tested annually or more frequently in accordance with the requirements of the Council.

The customer must ensure that any boundary backflow protection device is accessible at all times for inspection and maintenance purposes. Council reserves the right to charge a fee to the customers for any additional time spent making a device accessible if the customer has failed to do so.

The customer must not interfere with the device in any way. This includes raising the ground levels around the device that could compromise minimum clearances or access to test the device, or using the test ports as a bypass or temporary water supply.

There shall be no bypassing of any boundary backflow prevention device other than (with the Council's approval) with an equivalent device installed in parallel to ensure continuity of supply during testing or maintenance of the primary device. The customer must report leaks or any other problems observed upstream of the point of supply, or in the boundary protection device itself to Council as soon as practical but not exceeding 7 days. If Council requires the customer to undertake the work to remove any backflow risks, the customer must notify or inform Council prior to taking those actions required by Council.



The customer must report to Council any significant change or proposed change to which the water is to be used in relation to hazardous materials and toxic environments.

Ownership of boundary backflow prevention devices

The ownership and maintenance of all backflow prevention devices within Invercargill City District are as follows:

Council will own those boundary backflow prevention devices located outside the private property boundary on public land. Customers must pay the installation and initial commissioning costs for those devices on public places connected to the water supply of their property. Council will undertake annual testing and maintenance and charge the customer(s) for the work undertaken by Council as per Council's Fees and charges.

Boundary backflow prevention devices or air gaps on private property will be owned by the customer(s). The customer must obtain and pay for the necessary building consent, installation, required commissioning and ongoing maintenance. All backflow prevention devices inside the private property are required to be tested as part of the annual building warrant of fitness process. Air gaps are required to be registered with Council and verified annually.

Council will only intervene with backflow prevention matters on residential properties on request, or, if Council identifies or is notified that intervention is required to prevent any potential backflow event that is identified as significant under Appendix 1 of this policy.



Council's risk assessment approach

Council will assess backflow risks in accordance with Appendix 1 to determine the Risk Hazard Category. The appropriate backflow prevention device to be installed will be based on the risk category a property poses.

There are four risk hazard categories:

- **High Risk:** Any condition, device or practice which, in connection with the potable water supply system, has the potential to cause death.
- **Medium Risk:** Any condition, device or practice which, in connection with the potable water supply system, has the potential to injure or endanger health.
- **Low Risk:** Any condition, device or practice which, in connection with the potable water supply system, would constitute a nuisance, by colour, odour or taste, but not injure or endanger health.
- **Very Low Risk:** All household units (i.e. residences)

Council's approach for prioritisation and response

Council's approach under this policy will be to give priority to high risk properties, and those properties supplied by the bulk supply lines between Braxholme and Invercargill and Invercargill and Bluff, followed by medium, low and very low risk profile. They may also be done on an as-required basis as maintenance or replacement of connections on these is required or when new connections are requested.

If identified as high, medium and low risks Council will require customers(s) to install the necessary backflow prevention device(s). If the customer fails to undertake action within a reasonable timeframe, then Council will action the work required to remove the risk. The customer(s) will be liable for all cost incurred by Council. Council will recover such costs through appropriate debt recovery channels.



Residential household units are in the very low risk category and as such non-testable dual check valves are to be used for these. These will be installed by Council at the time of installation of a new or replacement of residential water connection(s) and incorporated into the normal charges for these.

The exception to the above will be where a residential property contains an identified or potential hazard or risk (including hazards materials and toxic environments) in which case the level of protection will be determined by the risk hazard category. An example of this may be where there is a home-based business operating.

In the case of a residential development supplied by one water connection for multiple residences with a shared internal water supply, Council will supply one backflow prevention device on the incoming supply to protect the public water supply. It shall be the responsibility of each customer to provide backflow prevention for themselves to protect themselves from other users of the shared private supply within the property.

Periodic surveys of backflow risks to the water supply distributions system to determine medium and high-risk sites will be undertaken by Council at intervals of not less than five years to ensure the adequacy of backflow protection across the distributions system.

Boundary Backflow Installations

Council through this policy will be responsible for approving the type, location and size of all boundary backflow protection device installations.

The following installation details will be taken into consideration:

- the boundary backflow prevention device to be installed based on the risk hazard category;
- the nature of the hazard and the likelihood of future change of use;



- accessibility in terms of accessibility to the device and not impeding pedestrian access;
- the metering arrangement (if applicable);
- the size of the connection to meet anticipated flow rates;
- head losses through the device;
- manufacturer's recommendations;
- protection against frost;
- the need for continuous water supply to the premises;
- access for checking, maintaining and testing the device;
- drainage requirements including size of drains;
- protection from traffic, underlying hazards, vandalism, etc.; and
- the point of supply beyond which customer responsibility begins.

Boundary backflow prevention devices shall not be located more than one metre inside the property boundary and be downstream of the water meter where one is installed. The exception being on residential properties with a non-testable dual check valve where it will be located outside the property, in the berm, other exceptions may apply based on location-specific practical limitations will be considered on a case-by-case basis. All boundary backflow prevention devices must comply with the current version (at the time of installation) of AS/NZS 2845.1 Water Supply - Backflow prevention devices Part 1: Materials, design and performance requirements, and Council may, at its discretion, consider or require other relevant standards on a case-by-case basis.

With the exception of fire suppression and/or hydrant lines (refer to fire suppression and hydrant system section for these) all boundary backflow prevention devices are to be installed with an isolating valve and line strainer upstream, and an isolating valve downstream of the device. Where continuous supply is needed, two devices with isolating valves should be installed in parallel so that one is still available for use while the other is being tested or maintained.



Reduced pressure zone backflow prevention devices must be installed above ground (minimum 300mm above flood level) and be protected from vehicular traffic, frost and vandalism. They should be installed in a securely fenced or caged area with a concrete base and a lockable access gate, where possible with the gate located parallel to the property boundary. Council will provide protection to boundary backflow prevention devices if it is located in public places. It is the customer's responsibility if it is located on private property.

Where double check valve devices are installed in an underground chamber, the design must allow for servicing by top entry and the chamber must be well drained. (For larger sized double check valve devices, it is good practice to install these above ground, for ease of access and possible future upgrading to reduced pressure zone devices).

The boundary backflow device must be sited so that it can be readily maintained and tested in-line without compromising the health or safety of the individuals involved. It should be possible to access the device without the need to climb ladders or scaffolding or enter a confined space.

Installation, maintenance and testing of boundary backflow devices on public places must only be carried out only by persons authorised by Council. Where there is a need to undertake such work on devices on the customer's side of the point of supply that are covered by the Building Act 2004, this work must be carried out only by a certifying plumber licensed under the Plumbers, Gasfitters and Drainlayers Act 2006. Where testing or commissioning is being undertaken then this is to be done only by a person accepted as an IQP on the South Island IQP register.

On completion of the installation Council is to be provided with signed as-built drawings that clearly show detail about the boundary backflow protection device and the way it has been installed, together with the first test results. Where Council is not the owner of the device, the details of the owner and, where appropriate, their agent(s) are to be provided with the as-built information. Where there is a building consent in place this as-built information is to be supplied to the Building Services team at the time of inspection and a copy of this sent internally to the Council's Three Waters team for entering into their register.



Testing Requirements

Irrespective of ownership (by Council or the customer), all testable boundary backflow prevention devices shall be tested at least annually. Testing shall be carried out more frequently under special circumstances where required by Council and after any maintenance work is carried out on the device. All registered air gaps shall be inspected and verified annually. In the event of a suspected backflow incident, Council may require an additional test to be carried out.

The testing shall be undertaken only by an Independently Qualified Person (IQP) approved for backflow prevention device testing (SS7) by the South Island IQP Panel. The inspection and verification of registered air gaps is to be done by an IQP or by someone approved by Council to do so. All testing must be carried out as per the New Zealand Backflow Testing Standard 2019: Field testing of backflow prevention devices and verification of air gaps or AS/NZS 2845.3.

Backflow testers involved with fire lines must understand the protocols of isolating fire protection systems. These protocols address the need to notify Fire and Emergency New Zealand, building owners, and insurers before a system is isolated. For this reason, all backflow prevention devices associated with fire protection systems are to be checked and maintained under the building's warrant of fitness.

The backflow test kit used must have a maximum working pressure of 1200 kPa and have separately coloured hoses to minimise mistakes being made during use. The test kit used must be certified/recertified every 12 months by an ISO registered laboratory and a copy of the test certification kept with the kit.

It is recommended that securely fastened test tags be attached to the device after testing showing as a minimum:

- the serial number of the device;
- the due date of the next test; and



- the name of tester and contact phone number.

Where a device fails its test, the backflow tester should attempt to repair the device while on site and retest. Where it is not possible to repair the device on site, an equivalent substitute device shall be installed (and tested). The failed test report shall be provided along with the subsequent pass test report.

The backflow tester is to provide a test certificate that meets the requirements of the nominated testing standard. Unless they are being supplied with a building warrant of fitness the results of all tests shall be sent to Council within five working days of the test.

In addition to annual testing, backflow prevention devices installed in dedicated fire systems must be tested immediately after a fire, and after each full flow test.

Where an internal boundary backflow prevention device is not yet subject to the compliance schedule/building warrant of fitness regime, due to the non-completion of other building consent work, but is being used to supply water, the customer is required to still test the device not less than annually and shall forward these results to Council for updating the register.

Requirements for fire suppression systems or hydrants

Backflow prevention devices associated with fire suppression systems or hydrants need to be appropriately designed and installed so as to not impede the correct operation of the system. They must comply with the building code and be appropriately sized and specified by the system designer.



A fire suppression backflow preventer shall be installed in the sprinkler or suppression system's valve house, or other secure environment as approved by the Council. Where Council requires the backflow device on a line serving a fire suppression or hydrant system to be located at the boundary (because for instance there is a significant distance between the boundary and the valve house), the backflow prevention device type, size, location and arrangement is required to be approved by the designer of the fire suppression system or hydrant before being proposed to Council.

Particular attention shall be paid in the design of the boundary installation to pressure losses associated with the boundary backflow device and its security. *(It is recommended that the boundary installation is located in a secured enclosure and that counter clockwise closing valves are incorporated, to minimise the possibility that the backflow isolation valve is deliberately closed, or left closed accidentally after testing of the boundary backflow device).*

In accordance with NZS 4541: Automatic Fire Sprinkler Systems, all valves on a connection serving a sprinkler system (other than a residential sprinkler system) shall be alarmed and/or monitored for unauthorised operation. It is the customer's responsibility to ensure this is in place and is monitored.

As per the Water New Zealand Code of Practice for boundary backflow prevention (2019) line strainers are not required to be installed upstream of backflow prevention devices installed on fire sprinkler lines with an expected demand of less than 2,300 litres per minute. When demand exceeds 2,300 litres per minute turbulence in the line could result in debris being transported and/or should Council deem it necessary due to high levels of debris in the water reticulation system, then only sprinkler system certifier listed strainers shall be fitted. This is to be approved by the sprinkler system designer.



Where a booster pump or similar is to be fitted to a fire sprinkler system this needs to be approved by Council as these can cause issues in the public water supply through the pump's action reducing the pressure in the supply pipes which could create back siphonage issues elsewhere. Conversely, they can create a pressure differential when they increase the pressure on the sprinkler system thereby creating a back pressure risk.

A backflow prevention device incorporating a bypass meter (sometimes known as a detector check assembly) to provide backflow protection and to detect any inappropriate use or possible leakage of the fire line may be incorporated on dedicated lines for fire sprinkler systems. Such assemblies shall have a producer statement from the supplier confirming that the device has been built and tested in compliance with relevant standards.

Due to the complexities associated with backflow prevention devices on fire suppression systems and the consequences if not installed or maintained correctly, the installation of these is to be done under a building consent obtained by the owner. The backflow prevention device is then to be included on the building's compliance schedule as an SS7 to ensure it is tested and maintained as part of the building's annual warrant of fitness administered by the building owner.

Mechanical flow meters shall not be installed on fire lines, as they could compromise flow under fire conditions.

Standpipe hydrant access

Access to a water network through the use of a standpipe is not permitted except by Fire and Emergency New Zealand, other emergency services, fire certifiers assessing the availability of fire flows, Council, or Council authorised contractors where it is necessary to access the network for operation of the drinking water supply.



Bulk water carriers shall only access the water supply through a Council approved filling station for which they have been granted authorisation. These filling stations will have onsite backflow prevention measures in place.

Non-compliance with the backflow requirements of the Water Supply Bylaw and this policy

In the event of a breach under Part 9 of Council's Water Supply Bylaw, Council shall serve notice on the customer(s) advising the nature of the breach and the steps to be taken to remedy it. If, after one week, the customer persists in the breach, Council reserves the right to reduce the flow rate of water to the customer without notice. In such an event the full service of the water supply shall be re-established only after payment of the appropriate fee and remedy of the breach to the satisfaction of Council.

Backflow Prevention Device Register

Council will hold and maintain a register of all boundary backflow prevention devices including the locations, device types, assessed risk level and the test results of each device. Amongst other things, Council will use this to separate out those devices and registered air gaps it is responsible for testing or verifying and those which fall under the property's building warrant of fitness and are tested by owner's IQPs.

Removal of a Boundary Device

Where a customer considers that the type of boundary backflow prevention device in use is no longer necessary, they may put a request to Council by way of a building consent application for the device to be removed and another device type (e.g. a non-testable device) installed in its place.



Where the request is granted, the removal and replacement procedures must be approved by Council and all costs involved borne by the customer. Full and appropriate records of the change must be provided to Council.

Alternatively, Council may require the device to remain in place to mitigate future risks and may agree to suspend testing with a specified periodic review.

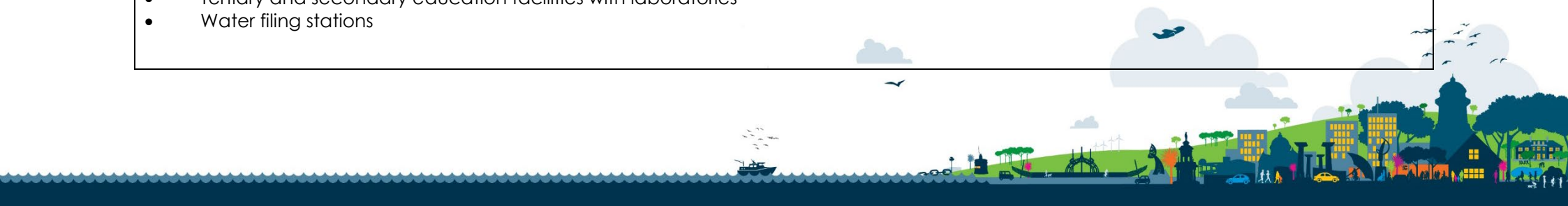


Revision History:	Nil
Effective Date:	1 December 2024
Review Period:	This policy will be reviewed every six (6) years unless an earlier review is required due to legislative change, or is warranted by another reason requested by Council.
New Review Date:	December 2030
Associated Documents / References:	
Supersedes:	Nil
Reference Number:	A5446243
Policy Owner:	Manager - Three Waters Operations
Relevant roles:	Three Waters Operational Engineer



Appendix 1: Risk Hazard Categories

Hazard description	Acceptable devices
<p>High: Any premises, condition, device or practice which, in connection with the potable water supply system, has the potential to cause death.</p>	<ul style="list-style-type: none"> • Reduced pressure zone device (RPZ) • Reduced pressure zone detector for fire systems • Registered air gap
<p>High hazard includes but is not necessarily limited to:</p> <p>Premises:</p> <ul style="list-style-type: none"> • Abattoirs • Vehicle and plant washing facilities • Chemical laboratories • Chemical plants • Commercial and industrial premises using, processing or manufacturing toxic chemicals • Hospitals • Laboratories • Dental surgeries • Mortuaries • Veterinary clinics • Petroleum processing plants, storage plants and service stations • Piers, docks, marinas and other waterfront facilities • Premises containing soil waste dump points, including stock truck effluent disposal sites • Sewage treatment plants and sewage lift stations • Tertiary and secondary education facilities with laboratories • Water filling stations 	

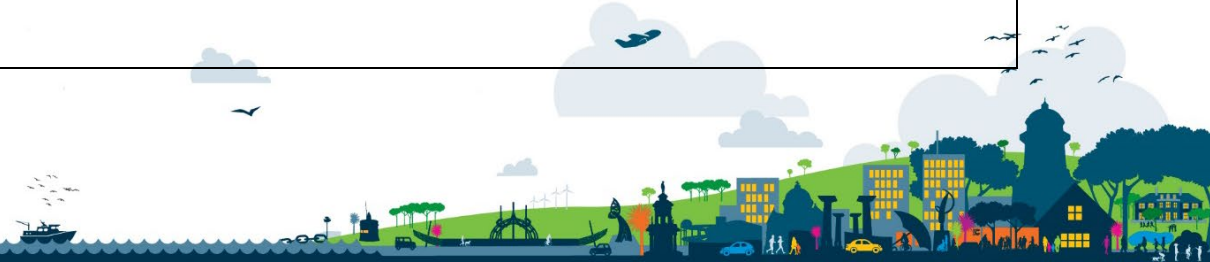


Conditions, devices or practices:

- Autoclaves and sterilisers
- Systems containing chemicals such as anti-freeze, anti-corrosion, biocides, or fungicides
- Beauty salon and hairdresser's sinks
- Boiler, chiller and cooling tower make-up water
- Chemical dispensers
- Chemical injectors
- Chlorinators
- Dental equipment
- Direct heat exchangers
- Fire sprinkler systems and fire hydrant systems that use toxic or hazardous water
- Hose taps associated with high hazard situations like mixing of pesticides and soil waste dump points
- Irrigation systems with chemicals
- Pest control equipment
- Photography and X-ray machines
- Piers and docks
- Sewage pumps and sump ejectors
- Sluice sinks and bed pan washers
- Livestock water supply with added chemicals
- Veterinary equipment
- Bidets and douche seats
- Handheld bidet hoses and WC trigger sprays
- Water connections for portable and mobile tankers
- Water connections for mobile dental clinics and/or home birthing pools
- Healthcare waste disposal equipment



Hazard description	Acceptable devices
<p>Medium:</p> <p>Any premises, condition, device or practice which, in connection with the potable water supply system, has the potential to injure or endanger health.</p>	<ul style="list-style-type: none"> • Reduced pressure zone devices (RPZ) • Double check valve • Double check detector for fire systems • Registered air gap
<p>Medium hazard includes but is not necessarily limited to:</p> <p>Premises:</p> <ul style="list-style-type: none"> • Caravan parks with no soil waste dump points • Food and beverage processing plants • Premises with fire-fighting water services • Premises with an alternative water supply • Public swimming pools <p>Conditions, devices or practices:</p> <ul style="list-style-type: none"> • Auxiliary water supplies such as pumped and non-pumped fire sprinkler secondary water • Connections for appliances, vehicles or equipment • Deionised water, reverse osmosis units and equipment cooling without chemicals • Fire sprinkler systems and building hydrant systems • Hose taps and fire hose reels associated with medium hazard situations • Irrigation systems with underground controllers • Irrigation without chemicals • Livestock water supply without added chemicals • Untreated water storage tanks • Water for steam cleaning • Water for equipment cooling • Drink dispensers with carbonators • Swimming pools, spas and fountains, other than those filled by a hose tap in conjunction with a household unit • Treated grey water • Air handling unit humidifiers without chemicals 	



Hazard description	Acceptable devices
<p>Low</p> <p><i>Any premises, condition, device or practice which, in connection with the potable water supply system, would constitute a nuisance, by colour, odour or taste, but not injure or endanger health.</i></p>	<ul style="list-style-type: none"> • Reduced pressure zone devices (RPZ) • Double check valve • Registered air gap
<p>Low hazard includes but is not necessarily limited to:</p> <p>Premises:</p> <ul style="list-style-type: none"> • Commercial premises not covered by medium and high with potential for change of use • Cafes, restaurants and other facilities used for the storage or preparation of food and beverages <p>Conditions, devices or practices:</p> <ul style="list-style-type: none"> • Drink dispensers (except carbonators) • Coffee machines • Auto vegetable peelers • Commercial dishwashers • Retractable hoses • Drinking fountains and bottle fillers • Hose taps, other than those associated with medium hazard or High hazard situations 	



Hazard description	Acceptable devices
<p>Very Low</p> <p><i>Properties that constitute a very low risk of contamination but as they sit above the water reticulation could allow water to return back into the mains supply in the event of depressurisation of the network.</i></p>	<ul style="list-style-type: none"> • Non-testable dual check valve • Air gap
<p>Premises:</p> <p>Residential household units that contain standard sanitary fixtures and appliances protected by air gap separation.</p>	

Note: The examples of premises listed above are not an exhaustive list. Where there is doubt, boundary backflow protection shall be selected to match the highest risk hazard identified within the property by making comparison to the hazard descriptions.

