



BACKFLOW PREVENTION CONTAINMENT

THE PURPOSE OF THIS FACT SHEET IS TO INFORM THE PROPERTY OWNER OF THE PUBLIC HEALTH RISK POSED BY BACKFLOW AS WELL AS THEIR RESPONSIBILITIES WITH RESPECT TO BACKFLOW PREVENTION.



WHAT IS BACKFLOW PREVENTION?

Backflow prevention refers to the control of potentially harmful contaminants entering Hunter Water's potable (drinking) water supply from cross connections in a customer's premises or backflow of contaminants into the water supply system.

WHAT CAN CAUSE BACKFLOW?

Backflow can be caused by either **back-siphonage** or **back pressure**, and requires a cross connection between the contaminated source and the drinking water supply.

Examples of when **back-siphonage** can occur include:

- A garden hose submerged in a swimming pool, tank or pond
- Below ground irrigation sprinklers (pop-ups) located in low lying areas where surface water ponding occurs

Examples of when **back pressure** can occur include:

- Rainwater tank with pressure pump, interconnection with the drinking water supply

WHY ARE BACKFLOW PREVENTION DEVICES REQUIRED?

Backflow prevention devices are an important component in protecting Hunter Water's drinking water and are required under Australian Standards *AS/NZS 2845: Water Supply – Backflow Prevention* and *AS/NZS 3500: Plumbing and Drainage* for any premises identified as posing a risk to the public drinking water supply.

WHO IS RESPONSIBLE?

- Hunter Water's responsibility is to exercise the required duty of care in the protection of the drinking water supply and to safeguard public health within our areas of operation as set out in the Hunter Water Act, Hunter Water's Operating Licence and Customer Contract. This includes ensuring adequate site containment backflow prevention is in place to protect the drinking water supply system.
- Hunter Water maintains a register of installed testable site containment backflow prevention devices and annual reports.
- The property owner is responsible for arranging a licenced and backflow accredited plumber to install, maintain and annually test the backflow device(s) on their property according to all relevant standards (AS/NZS 2845 and AS/NZS 3500) and regulations.
- The plumber is responsible for forwarding passed testable site containment backflow prevention device certified test reports to Hunter Water for recording.
- Only test reports for devices that have passed are to be submitted to Hunter Water. Where a device has failed, the property owner is to arrange to have the device fixed or replaced and retested with the passed test report forwarded to Hunter Water.
- Tenants are not responsible for backflow prevention devices.

Back Siphonage Examples:

- Below ground irrigation sprinklers (pop-ups) located in low lying areas where surface water ponding occurs.

Back Pressure Examples:

- A pressure pump on a rainwater re-use tank which is interconnected with the drinking water supply.

WHICH BACKFLOW PREVENTION DEVICE DO I NEED?

- There are different types of devices which can be installed depending on the hazard rating of the processes carried out on the property.
- The three hazard ratings identified by AS/NZS 3500:1 are:
 - **High Hazard** – any conditions, devices or practice which is connected with the water supply system and has the potential to cause death.
 - **Medium Hazard** – any condition, device or practice which in connection with the water supply system could endanger health.
 - **Low Hazard** – any condition, device or practice which in connection with the water supply system would constitute a nuisance but not endanger health.
- Residential, commercial and industrial properties that have been categorised as medium or high hazard are required to have an approved for purpose testable backflow prevention device installed at the outlet of the water meter.
- If the process at a property changes and the hazard rating is increased, the property owner must have a licenced and backflow accredited plumber certify the change in hazard rating and inform Hunter Water. A high hazard rated site containment backflow prevention device will be required to be installed.

WHAT ARE THE INSTALLATION REQUIREMENTS OF BACKFLOW PREVENTION DEVICES?

- Site containment backflow device are to be located at the boundary of the property at the outlet of the meter.
- All backflow devices must be installed by a licenced and backflow accredited plumber.
- The backflow device shall not be located in pits or below ground level as the pit may fill with water and cause a backflow incident.

- Site containment backflow prevention devices must be tested by a licenced plumber accredited to test such devices after installation and prior to service, with results sent to Hunter Water if the device has passed testing. If the device fails testing it is to be repaired and retested.

WHY IS ANNUAL BACKFLOW TESTING REQUIRED?

- Annual testing of a backflow device is mandatory under AS/NZS 3500 to ensure that they are functioning properly. Backflow devices have internal seals, springs and moving parts that are subject to fouling, wear or fatigue.
- Hunter Water requires the registration of all medium and high hazard site containment backflow prevention devices. In order to register a device, a valid passed backflow test report must be sent to Hunter Water.

WHAT IF I HAVE A BACKFLOW PREVENTION DEVICE BUT HUNTER WATER HAS NO RECORD OF ITS INSTALLATION?

You must ask your licenced and backflow accredited plumber to send a record of the initial passed test report of the device to Hunter Water for review and recording.

WHAT WILL HAPPEN IF I DO NOT COMPLY WITH THE BACKFLOW REQUIREMENTS?

If the property owner fails to install, repair, maintain, replace or test a site containment backflow prevention device (as required by a notice issued by Hunter Water) Hunter Water may disconnect the property from the water supply system until the owner has complied with the notice. This is to prevent the property contaminating the drinking water supply.

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