

**City Administrative Centre**  
Bridge Road Nowra NSW Australia 2541  
Phone: 02 4429 3214  
water@shoalhaven.nsw.gov.au

Shoalhaven Water has a responsibility to provide safe drinking water to our community from the point of treatment to the point of use. It is the responsibility of any commercial or industrial property owner to ensure that they do not affect the mains supply with any contaminated water from their property. Working together we can protect public health and protect the environment.

## What is Backflow?

Backflow is the unwanted flow of potentially contaminated water into the potable (drinking) water supply. Our water distribution system is designed to ensure that water flows to a property under pressure, if this pressure is not maintained there is a chance that water could transfer from a property back into the main water supply.

Backflow can occur in two ways:

- **Back Siphonage** is a condition that can occur when a negative pressure occurs in the main and contaminated liquids enter the potable water supply by siphonage.
- **Backpressure** is a condition where the pressure downstream becomes greater than the pressure upstream of the cross connection thus allowing water or other contaminated liquids to enter the potable supply.

## What is Cross Connection?

Cross connections are actual or potential physical connections between potable and non-potable water. There is a risk to public health if there is a cross connection between a water supply and a contaminated source.

The most common situation involving cross connection is with unmetered fire services and internal plumbing of water tanks. Other examples of where potential cross connections are likely to occur are – market gardens, dairy farms, commercial kitchens, clubs & hotels, dental surgeries, funeral parlours, hospitals, and mechanical workshops.

Cross connections without proper backflow prevention can cause health issues for water supply customers. By protecting our water supplies from contamination, we can better protect our community from harmful hazards.

## How do I prevent backflow and cross contamination?

Depending on the business activity occurring on the premises, there are different backflow prevention devices designed to minimise the risk of potential contamination. Backflow devices are installed downstream of the boundary meter.

Under AS/NZS 3500.1 the three hazard ratings are as follows:

- **High Hazard** – any condition, device or practice in which connection with the water supply system has the potential to cause death
- **Medium Hazard** – any condition, device or practice in which connection with the water supply system could endanger health
- **Low Hazard** – any condition, device or practice in which connection with the water supply system could constitute a nuisance but not endanger health or cause injury.

Devices of high or medium risk potential must be tested annually by an accredited backflow plumber.

**For further information contact our Regulatory Unit on (02) 4429 3125 or  
email: [water@shoalhaven.nsw.gov.au](mailto:water@shoalhaven.nsw.gov.au)**