

## Back-siphon

A back-siphon occurs due to a loss of pressure in the public water distribution system. This can occur:

- when large volumes of water are being drawn for fire protection
- during a water main or plumbing system break or
- during a shut-down of a water main or plumbing system for repair.

During a back-siphon, a reduction of pressure creates a vacuum in the piping and the water flows in the opposite direction. For example, if a hose tap is open when the end of the hose is submerged in a contaminated container of water, the contaminated water in the container can be siphoned into the properties plumbing.

## Back-pressure

Back-pressure occurs when water is being pumped at a pressure higher than the town mains or the pressure within the building. When back-pressure occurs, water flows in the reverse direction to normal flow. It is important to understand that with a reduction in mains water pressure, the water source only needs to be slightly higher than the public water supply pipe pressure, to push the water back through the property into the water mains.

Because homes and businesses use chemicals and other potential contaminants, backflow can be a major threat to the health and wellbeing of our consumers. At its worst, backflow contamination of the water supply could cause death or serious injury, so we all have a responsibility to help reduce this risk.