BACKFLOW PREVENTION

Part 2

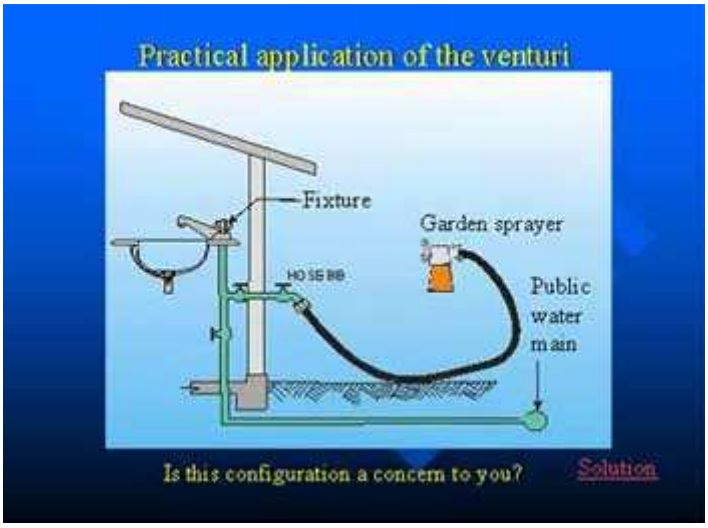
WHAT IS BACKFLOW?

Backflow is a term used to describe a situation in which potentially contaminated water flows in the opposite direction to that intended and enters the drinking water supply. Backflow is normally caused by a drop in supply pressure, creating a negative pressure in the water supply system. This allows contaminated liquid to be siphoned into the drinking water via a cross-connection. The consequences of backflow range from being a nuisance to the very serious, even to the extent of causing death of an unsuspecting person drinking from the contaminated water supply.

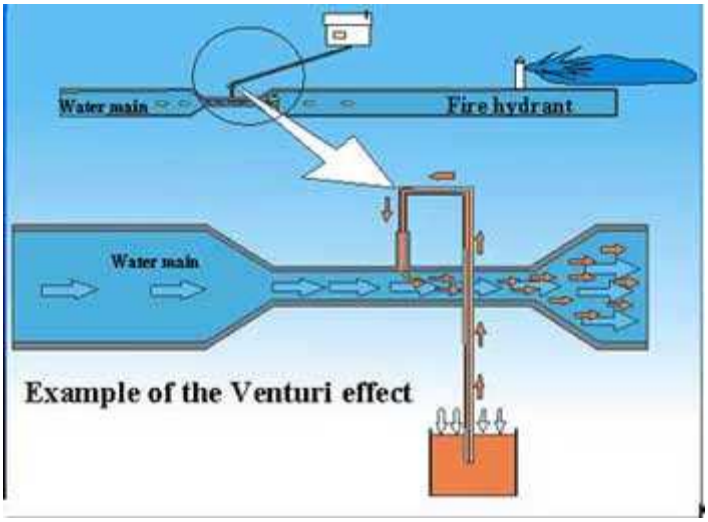
Each year many people suffer as a result of the backflow of contaminated water.

There are two main causes of backflow : Back Siphonage and Back pressure

Back siphonage. A form of backflow caused by a negative or below atmospheric pressure within a water system.



Back siphonage is a practical example of the venturi effect, essentially the same as sucking liquid through a straw.



Backsiphonage can occur when there is reduced pressure in the distribution pipes created by an interruption in the water supply, such as a main break or repair, or increased water velocity within the pipes created when there is a large draw such as fire fighting, or flushing through hydrants. , and creating higher than normal water velocity in the distribution pipes.

Back pressure

How is Backpressure backflow caused?
Backpressure backflow can happen when a system is operating under higher pressure than the pressure within the water distribution main. This can force contaminants from the system into the potable water supply. Backpressure backflow can occur from, improperly equipped hot water heaters, pumps, elevated piping , or any equipment attached to the potable water system and operating under pressure.