The Basics of Backflow



TCEQ Water Supply Division





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Protect the public health by regulating public water systems to ensure that they provide safe and sanitary drinking water to their customers.

- Chapter 290 is much broader than Chapter 344
- Landscape Irrigation Program administers Chapter 344



<u>Cross-Connection</u> - A physical connection between a public water system and either another supply of unknown or questionable quality, any source which may contain contaminating or polluting substances, or any source of water treated to a lesser degree in the treatment process.

Title 30 Texas Administrative Code 290 Subchapter D



Health Hazard - A cross-connection, potential contamination hazard, or other situation involving any substance that can cause death, illness, spread of disease, or has a high probability of causing such effects if introduced into the potable drinking water supply.

Title 30 Texas Administrative Code 290 Subchapter D



Non-Health Hazard - A cross-connection, potential contamination hazard, or other situation involving any substance that generally will not be a health hazard, but will constitute a nuisance, or be aesthetically objectionable, if introduced into the public water supply.

Title 30 Texas Administrative Code 290 Subchapter D



Backflow – the undesirable reversal of flow of water or mixtures of water and other liquids, gases, or other substances into the distribution pipes of the potable supply of water from any source or sources.

Manual of Cross-Connection Control, Tenth Edition (USC)



Backpressure – an elevation of pressure in the downstream piping system (by pump, elevation of piping, steam pressure, air pressure, etc.) above the supply pressure at the point of consideration, which would cause or tend to cause a reversal of the normal direction of flow.

Manual of Cross-Connection Control, Tenth Edition (USC)



Backsiphonage – a form of backflow due to a reduction in system pressure, which causes a sub-atmospheric pressure to exist in the water system.

Manual of Cross-Connection Control, Tenth Edition (USC)



Reduced Pressure Principle Backflow Prevention Assembly (RP, RPZ) – suitable to be used against a health hazard.





RP or RPZ







Pressure Vacuum Breaker (PVB)

Suitable to be used against a health hazard.



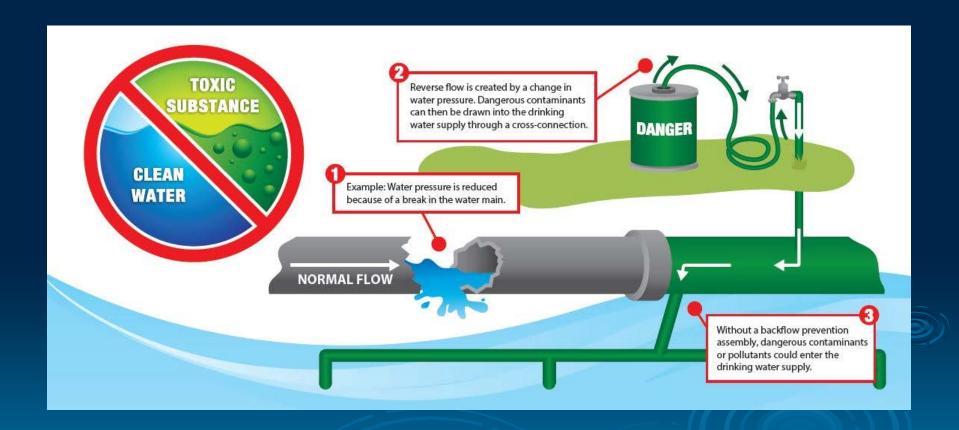


Double-Check Valve Assembly (DC, DCVA) – not suitable to be used against health hazard.



Examples of Backflow





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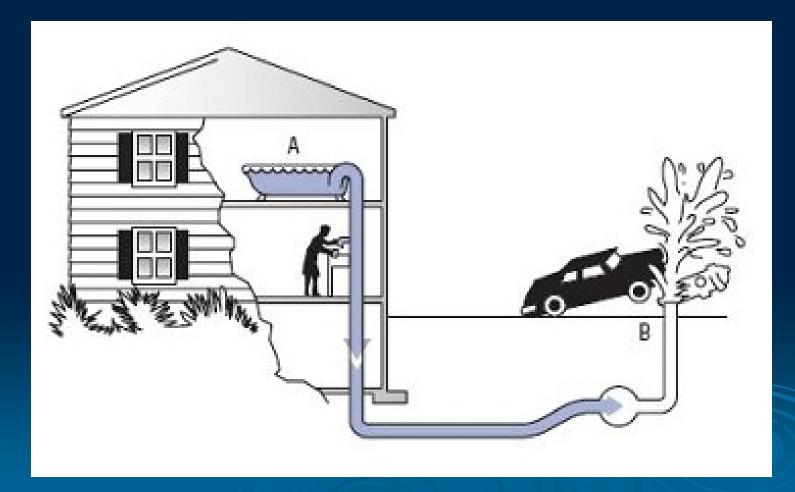






Examples of Backflow









Water Supply Division 512-239-0400

