

# Backflow Prevention

## Water Powered Back-up Sump Pumps

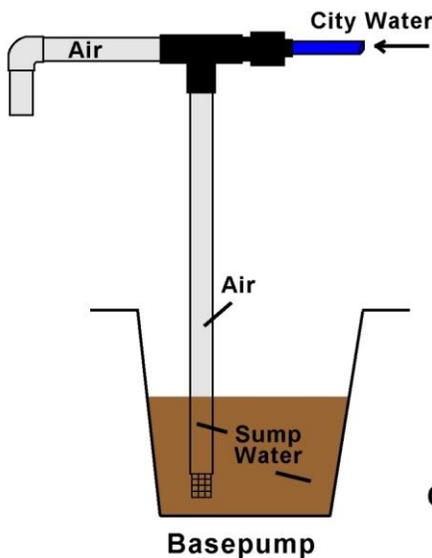
### Backflow or Cross Connection - What is it?

Cross Connection is a physical piping connection between a possible source of contamination and the public drinking water system. This piping connection, if not properly protected, can lead to the contamination of the drinking water system through a backflow or a back siphon event. This backflow can be caused by a large volume of water being drained upstream from the neighborhood water lines by a ruptured pipe or an opened fire hydrant.



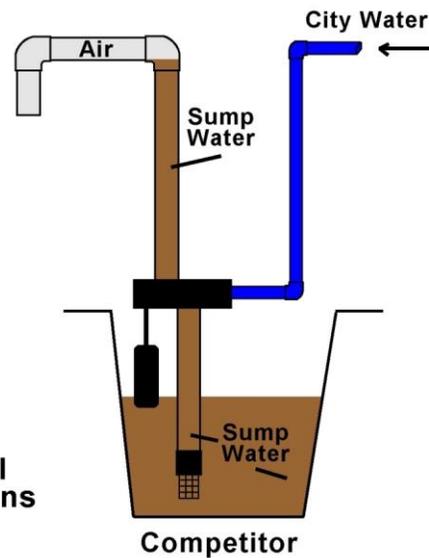
### Backflow or Cross Connection— How it relates to water powered pumps.

A water powered back-up sump pump is operated by the flow of pressurized water from your household piping system. Under normal, non-operational conditions, there is no water flowing through the water powered back-up sump pump. The illustrations below will help you understand the municipal water and sump water connections.



**Basepump**

**Normal  
Conditions**

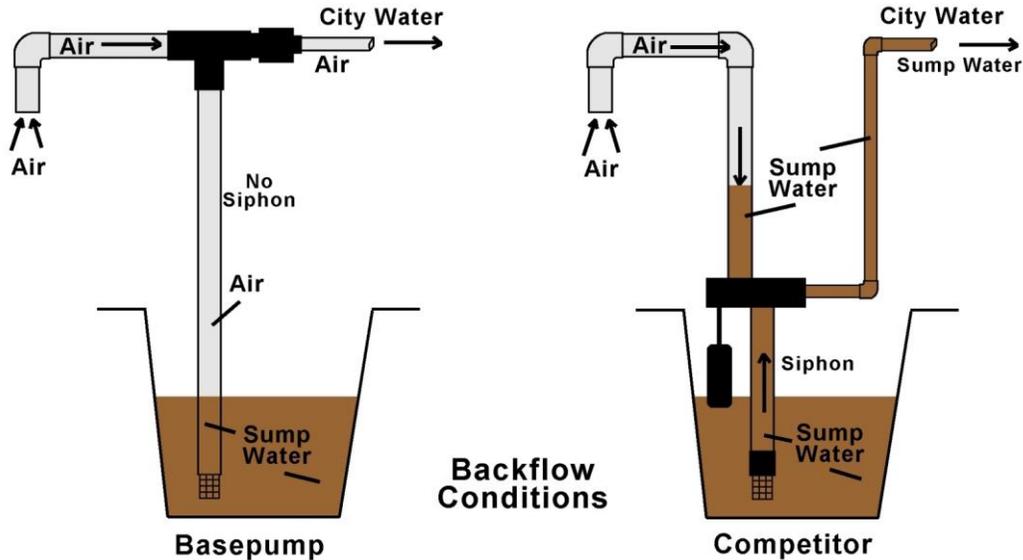


**Competition**

- Under normal, non-operational conditions, the suction and discharge pipes are empty of dirty sump water.
- The Basepump ejector is designed to be located approximately 8-10 feet above the sump water.
- Under normal, non-operational conditions, the suction and discharge pipes are full of dirty sump water, held there by a check valve.
- The Competitors' ejectors are designed to be located inside the sump or at floor level, 1-2 feet above the sump water.

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Basepump	Competition
<ul style="list-style-type: none"> <li>When a backflow condition occurs, Basepump will <b>not</b> allow dirty sump water to flow back into the city water piping.</li> <li>The discharge pipe is vented to the atmosphere which will <b>not</b> allow a vacuum or siphon to occur.</li> <li>The empty suction pipe, and being mounted up at the ceiling, several feet above the sump, prevents a siphon from occurring.</li> </ul>	<ul style="list-style-type: none"> <li>When a backflow condition occurs, the competitor's model can allow dirty sump water to flow back into the city water piping.</li> <li>The discharge pipe is full of sump water which allows a vacuum or siphon to occur.</li> <li>With a full suction pipe, and being mounted either in the sump or at floor level, can cause a siphon to occur, pulling sump water into the city water pipes.</li> </ul>

### Basepump – AVB (Atmospheric Vacuum Breaker)



The Basepump with the AVB optional backflow preventer adds an additional level of protection. When a backflow condition occurs, The AVB valve allows air to enter the system, which breaks any siphon effect.

Refer to the Basepump data sheet for details and specifications.