

FAQ's for Physical Connection

1. [What is a cross connection?](#)

A cross connection is an arrangement of pipes or hoses that allows the potable water supply to be connected to a line that contains a contaminant. For example, an ordinary garden hose connected to a sill cock with the end lying in a pond.

2. [What is most common cross connection?](#)

The ordinary garden hose is the most common cross connection in that it can be easily connected to the potable water supply and used for hazardous applications such as connections to weed killer sprayers, fertilizer applicators, or left laying in a swimming pool. A reduction in the water pressure in the house could draw these contaminants back into the household plumbing system and the water main in the street.

3. [What protection should I install on a sill cock?](#)

A hose bib vacuum breaker should be installed on every sill cock.

4. [What protection should I install on my garden/lawn irrigation system?](#)

An Atmospheric Vacuum Breaker should be installed and it should be at least six inches above the highest sprinkler head provided there are no downstream control valves (no zones to your system) otherwise use a Pressure Vacuum Breaker installed at least 12 inches above the highest sprinkler head. Please consult your plumbing code official for additional information and requirements for irrigation systems.

5. [Do I need a backflow prevention device on the supply to my boiler or furnace?](#)

Yes, a backflow prevention device is needed. Consult your plumbing code official for the required type for your particular system.

6. [Have there been cases where the public supply has been contaminated due to the lack of a backflow prevention device?](#)

Yes, there are cases where the public supply has been contaminated and there are various reports that list these occurrences. If you require specific examples, see the EPA document on [Cross Connections](#).

7. [Do I need a Physical Connection permit?](#)

See table below:

Who I am	Public water supply	Other water supply	Is a Physical Connection Permit Required?
Private residence	Yes	None	No
Private residence	Yes	Irrigation well	No, but you may be required to install a backflow prevention device. Contact your

Who I am	Public water supply	Other water supply	Is a Physical Connection Permit Required?
			public water system or plumbing code official for further information.
Private residence	Yes	Gray water wastewater system	No, but you may be required to install a backflow prevention device. Contact your public water system or plumbing code official for further information.
Private residence	Yes	Hydraulic sump pump	No, but you may be required to install a backflow prevention device. Contact your public water system or plumbing code official for further information.
Business	Yes	Well	Yes, if any plumbing connected to the well enters the building(s) which have a public supply
Business	Yes	Pond to supply fire suppression sprinkler system	Yes
Car wash	Yes	Storage tanks for the recovery and recycling of the water	Yes
Homeowners association	Yes	Development with its own sewage treatment plant	Yes, if the public supply enters the sewage treatment plant.
Municipal Utilities Authority	Yes	Also operates waste water system	Yes, for each waste water pump station and sewage treatment plant that also has public supply entering its buildings.
Residential care facility	Own PWS with wells	Connection to other public system	Yes, if your PWS is a “public non-community water system”; no, if your PWS is “public community water system.”
Industrial facility	Yes	Large storage tanks of process water	Yes, as storage tanks are considered an “unapproved source.”
Office building	Yes	Fire suppression sprinkler system supplied by PWS by service connection separate from drinking water line	Yes, if the fire suppression system contains an additive such as antifreeze or for corrosion control