



Location: Main Pump Station Dilla St. Milford, MA.

## Where can I get more information on cross connections?

For more information please contact either:



Department of Environmental Protection, Division of Water Supply and Public Affairs Office  
One Winter Street  
Boston, MA 02108  
(617) 292-5770  
[www.mass.gov/dep](http://www.mass.gov/dep)



Milford Water Company  
66 Dilla Street  
Milford MA 01757  
(508) 473-5110  
[www.milfordwater.com](http://www.milfordwater.com)



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66 Dilla Street  
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(508) 473-5110

# Cross Connections: Protecting Your Drinking Water

PLEASE FORWARD TO PROPERTY OWNER OR MANAGER

## COMMERCIAL



What your business can do.

What your business can do.

Milford Water Company, Milford MA

What can my business do to make sure my water supply is protected from cross connections?

### At my business:

- Find out if all cross connections within your work-place are protected
- Find out when / if all backflow devices have been tested this year
- Review your information on your cross connection program

### In general:

- Find out all you can about cross connection control from MassDEP, the Milford Water Company or your local plumbing inspector

### Sources:

*Protecting Drinking Water, Cross Connections.* Boston, MA: Department of Environmental Protection, 1994. Print.  
*Cross Connection Control Information Brochure.* Falmouth, MA: Falmouth Water Department. Print.

## Key Terms:

- **Cross Connection:** any actual or potential connection between a potable drinking water line and a piece of equipment or piping containing non-potable water (i.e. gas, industrial fluid, etc.)
- **Backflow:** reverse flow of harmful chemicals or bacteria back into a potable water supply
- **Water Contamination:** improper plumbing connections on private property that can contaminate the public water supply with harmful chemicals or bacteria

Why should my business be concerned about cross connections?

An unprotected or inadequately protected cross connection in your work place could contaminate the drinking water not only in your business, but in neighboring businesses and homes. Severe illnesses and injuries—even deaths—have been caused by cross connection contamination events that could have been prevented. Unprotected and inadequately protected cross connections have been known to cause outbreaks of hepatitis A, gastroenteritis, Legionnaire's disease, chemical poisoning, body lesions (exposure through bathing), damage to plumbing fixtures and explosions.



How can a cross connection contamination event occur?

Non-potable water or chemicals can contaminate the public drinking water supply as a result of backpressure or back-siphonage, two types of backflow. Backpressure occurs when the pressure in a system or set of equipment (such as an air conditioning unit) is greater than the pressure inside the drinking water line. Back-siphonage occurs when the pressure in the drinking water line drops due to fairly routine occurrences such as main breaks, nearby fires and unusually heavy water demands. **Contaminants are sucked out from the equipment or system and into the drinking water line.**



Have cross connections ever been a problem in Massachusetts?

Yes. One of the most severe incidents took place at a Massachusetts college, where the entire football team became infected with hepatitis A due to cross connection contamination at a drinking water fountain that was hooked up to an unprotected water line.

What types of potential cross connections can I encounter at my business?

Areas where cross connections can occur at work include

- Air conditioning or cooling systems
- Fire protection systems
- Lawn irrigation systems
- High pressure boilers
- Within process equipment such as chemical mixing tanks, plating tanks, private wells

**Hospitals, laboratories, mortuaries, piers, docks, marinas, chemical plants and metal plating industries must be well protected from cross connections**

How is the drinking water supply protected from cross connections?

The best way to protect drinking water is to eliminate every cross connection. When this is not possible, drinking water lines are protected from cross connections by the installation of backflow preventers. Some backflow prevention devices required and regulated by the Massachusetts Department of Environmental Protection (DEP) include:

- Air gaps
- Double check valve assemblies
- Hose bibb vacuum breakers
- Reduced pressure zone assemblies
- Pressure vacuum breaker assemblies

Who is responsible for protecting the public drinking water supply?

At your business: It is the facility owner's responsibility to make sure that every cross connection situation on the property is eliminated or properly protected by a backflow preventer and each backflow preventer has been properly installed and approved by Milford Water Company. It is also the property owner's responsibility to ensure that each backflow preventer is in working order through annual testing by the water company.

