

Helpful information from the West Newbury Water Department

Cross Connection Controls

Notice: As of 2003, Irrigation Systems are not allowed to be installed to the municipal water system. All systems installed prior to that date are grandfathered. They can be installed to a private well but there cannot be any connection to the municipal water system. When your meter is replaced, Water Department personnel will also inspect for potential cross connections. An irrigation system connected to the municipal water system must be protected by a proper backflow device. This is required by State Law and the backflow device can only be installed by a licensed plumber. If you have an irrigation system supplied by a private well, it can not be connected to the municipal system or any part of the plumbing that supplies the municipal water to your home.

What are Cross-Connections?

Cross-connections that contaminate drinking water distribution systems are a major concern. A cross-connection is formed at any point where a drinking water line connects to equipment (boilers), systems containing chemicals (air conditioning systems, fire sprinkler, irrigation systems), or water sources of questionable quality. Cross-connection contaminations can occur when the pressure in the equipment or system is greater than the pressure inside the drinking water line (backpressure). Contamination can also occur when the pressure in the drinking water line drops due to fairly routine (main breaks, heavy water demand) causing contaminants to be sucked out from the equipment and into the drinking water line (backsiphonage).

Outside water taps and garden hoses tend to be the most common sources of cross-connection contamination at home. The garden hose creates a hazard when submerged in a swimming pool or when attached to a sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers, cesspools or garden chemicals. Improperly installed valves in your toilet could also be a source of cross-connection contamination.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained.

For more information, review the Cross-Connection Control Manual on the U.S. EPA's Web site at

<http://water.epa.gov/infrastructure/drinkingwater/pws/crossconnectioncontrol/index.cfm>. You can also call the Safe Drinking Water Hotline at (800) 426-4791.

In 2005 we started an aggressive Cross-Connection program. This program includes surveying homes for potential cross-connections. In most cases, the home owner doesn't even know that they may have a cross-connection with another source that may be contaminated.

Example, homes that have a private well and also are connected to the municipal water system could be directly connected to each other through the household plumbing which needs to be separated.

If you are concerned that you may have a cross-connection within your home, please contact the Water Department at (978) 363-1100 extension #127.

As part of our cross-connection program, we will be conducting a survey to see if you have any potential cross-connections. If we find a problem, we will contact you to explain what needs to be done to rectify the problem.

Cross- Connections Continued

Cross Connection Examples



Garden hose in contaminated water

The center picture is a hose bib vacuum breaker that you attached to the outside sillcock. The garden hose is then attached to the hose bib vacuum breaker. This item can be purchased at most hardware stores for a couple of dollars. For little money you can prevent a cross connection to the municipal water system. Massachusetts Plumbing Code requires that all sillcocks, hose connections and wall hydrants, including faucets that incorporate a hose thread outlet, must have a backflow preventer or vacuum breaker installed. This is mandatory unless the faucet already has one built into the device.



Hose bib vacuum breaker



Garden hose in pool

Water Conservation

You can play a role in conserving water and saving yourself money in the process by becoming conscious of the amount of water your household is using and by looking for ways to use less whenever you can. It is not hard to conserve water.

Here are a few tips:

- Automatic dishwashers use a lot of water for every cycle, regardless of how many dishes are loaded. So get a run for your money and load it to capacity.
- Turn off the tap when brushing your teeth.
- Check every faucet in your home for leaks. Just a slow drip can waste 15 to 20 gallons a day. Fix it and you can save almost 6,000 gallons per year.
- Check your toilets for leaks by putting a few drops of food coloring in the tank. Wait 15 minutes to see if the color shows up in the toilet bowl. If it does, you have a leak. It is not uncommon to lose up to 100 gallons a day from an invisible toilet leak. Fix it and you could save as much as 30,000 gallons a year and a lot of money. You can also obtain a leak detection kit from the Water Department free of charge.
- If you manually turn your irrigation system on and off instead of running it on a timer, you will save money and help conserve the water supply.
- Use your water meter to detect hidden leaks. Simply turn off all taps and appliances that use water. Take note where the meter dial is located on the meter. Then check the meter dial after several minutes. If the meter dial has moved, you have a leak. Newer meters have a small diamond or star shaped indicator dial that will be turning if you have a leak. If the leak is small, it may take several minutes before the dial will move. The dial usually is red or black.
- **Shorten your irrigation system run time.** This will stop over watering and put less stress on the water system to keep up with fire protection during those hot months.
- **Rain sensors** are required to be installed on all grandfathered irrigation systems (prior to 2003) that are connected to the municipal water system. This will stop your irrigation system from watering during rainy periods.
- Install new lawns in the mid spring or early fall when the temperature is mild. If you initially spend more for extra loam when installing a lawn it will cost you less to water the grass when it grows in because it will be able to hold more moisture for longer periods of time which means you will be able to water less. Don't wait until summer to install the lawn. A water ban may be in effect which will not allow you to water the lawn or that you will need to water more often which stresses the water system and you lose a lot of water to evaporation during the hot months.

Please conserve your water resources and be aware of any water restrictions that may be implemented in the future.

Go to www.wnewbury.org for updates on the Town page and the Water Department page.

Your efforts to conserve water will help the department to maintain adequate water levels in the water tanks for fire protection and to relieve stressed water sources. Limiting the amount on nonessential outdoor water use is needed to ensure a sustainable drinking water supply and to protect natural resources and streamflow for aquatic life.