

Town of Lexington Water System

Cross-connections that contaminate drinking water distribution lines 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 systems, irrigation systems), or water sources of questionable quality. Cross-connection contamination 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 occurrences (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 chemical sprayer for weed killing. Garden hoses that are left lying on the ground may be contaminated by fertilizers,



cesspools, or garden chemicals. A simple hose connection vacuum breaker at the end of the outside spigot will prevent backflow into your residence.

Community water supplies are continuously jeopardized by cross-connections unless appropriate valves, known as backflow prevention devices, are installed and maintained. We have surveyed all industrial, commercial, and institutional facilities in the service area to make sure that all potential cross-connections are identified and eliminated or protected by a backflow prevention assembly. We also inspect and test each to make sure that it is providing maximum protection. For more information, review the Cross-Connection Control Manual from Massachusetts 310 CMR 22.22 at www.mass.gov/dep/water/laws/regulation.htm.