

CROSS-CONNECTION CONTROL PROGRAM

What is Cross-Connection?

You have a beautiful lawn with an extensive irrigation system. You apply fertilizers and pesticides diligently. Sometimes irrigation water puddles around your sprinkler heads. Your neighbor fills a glass of water from the tap for their child to drink. The child later becomes ill. What happened? A sudden drop in pressure in the public water system caused bacteria, nutrients and chemicals from your irrigation system to be back-siphoned into the public drinking water through your sprinkler heads. This contamination would not have occurred if you had a backflow prevention assembly or device properly installed on your water line connected to your irrigation system.

There are two criteria that must be met in order for a cross-connection event, such as the above, to occur. First, there must be a physical connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or a substance that is not, or cannot be, approved as safe, wholesome and potable. This is known as a cross-connection. With the example above, the point of cross-connection is the sprinkler head in the puddle of contaminated water. In addition, there must be a hydraulic condition called backflow. Backflow is the undesirable reversal of flow of non-potable water or other liquids, gases or substances into the potable water distribution system through a cross-connection. The backflow incident described above was caused by the sudden decrease in the city's water distribution system.

Cross-connections can vary depending on how water at a home or business is used. They may include a well on the property, using water to irrigate, using water to heat or cool a building, or having a fire sprinkler system in your home or place of business.

San Mateo County Cross Connection Control Program

The Health System's Environmental Health Services Division is contracted by many of the water purveyors in San Mateo County to implement a Cross-Connection Control Program as mandated by the State Water Resources Control Board, Drinking Water Division. The following water purveyors are Agency Members of the San Mateo County Cross-Connection Control Program:

- Mid-Peninsula Water District (City of Belmont and Parts of San Carlos)
- Brisbane Water Department/ Guadalupe Valley Municipal Improvement District
- Burlingame Water Department
- County Service Area 7 (La Honda)
- Cuesta La Honda Guild (La Honda)
- Daly City Water Division
- Estero Municipal Improvement District (City of Foster City)
- Hillsborough Water Department
- Millbrae Water Department
- Menlo Park Municipal Water District
- North Coast County Water District (City of Pacifica)
- O'Connor Tract Co-op Water Company (East Palo Alto/Menlo Park)



- Palo Alto Park Mutual (East Palo Alto)
- American Water (East Palo Alto)
- San Bruno Water Department
- Westborough Water District (parts of South San Francisco)

Surveys and/or inspections are conducted at facilities or services to determine potential cross-connection threats to public health and safety throughout the County.

What is a backflow prevention assembly?

A backflow prevention assembly (BPA) is a testable assembly that prevents non-potable water from flowing back into (e.g. backflow) the potable water supply. BPAs protect the potable water supply from actual or potential contamination due to downstream, non-potable uses such as landscape irrigation, fire sprinkler systems, boiler systems or alternate water supplies (e.g. water wells, tanks). To eliminate potential cross-connections or threats to public health, BPAs may be required to be installed at the water service meter(s) and/or inside the facility to isolate equipment that may subject the water system to contamination.

BPAs need to be tested upon installation and annually thereafter by a County-certified Backflow Prevention Assembly Tester. San Mateo County mails out test notice reminders to BPA owners throughout the year. If the assembly passes the annual field test, the tester will hang a numbered backflow tag from the assembly and submit the test results to San Mateo County. Failure to test BPAs annually may result in enforcement actions by San Mateo County and the Water Purveyor.

For more information about the San Mateo County Cross Connection Control Program, please call (650) 372-6200 or visit <http://smchealth.org/crossconnection>.