Appendix G. Cross Connection Control Test Procedure for On-Site Recycled Water Systems

The following method is used for conducting a cross-connection control test on all sites where both recycled water and potable water are intended to be used in separate piping systems. A certified AWWA cross-connection specialist must perform the test.

Cross-Connection Control Test—Part One:

The potable water system shall be activated and pressurized. The on-site recycled water system shall be shut down at its point of connection and depressurized—this is usually done by manually bleeding an irrigation control valve and/or quick-coupling valve that is located at the lowest point of elevation in the irrigation system.

1. The potable water system shall remain pressurized for a minimum period of time specified by the cross-connection specialist while the irrigation system is depressurized. The minimum period of time the recycled water irrigation system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable water and recycled water irrigation systems.

2. All recycled water irrigation control valves and quick-coupling valves, and any site features that are approved to be supplied with recycled water from the on-site system (such as decorative fountains) shall be tested and inspected for flow. If the on-site recycled water system has been truly shut down at its point of connection, then continuous flow from any part of the on-site recycled water system— irrigation system or decorative fountains, etc.—indicates a cross-connection.

3. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. No flow from any potable water outlet indicates that it may be connected to the recycled water irrigation system.

4. If no cross-connections are discovered, proceed to the second part of the test. If any cross-connections are found, they must be disconnected and the site must be retested by an AWWA cross-connection specialist per these procedures.

Cross-Connection Control Test—Part Two:

1. The potable water system shall be shut down at its point of connection (usually the meter) and depressurized. In the case of a potable water system in a multi-story building, the potable water system pressure may be reduced by the amount deemed necessary by the cross-connection specialist and monitored with a gauge installed at a low point of elevation in the potable water system.

2. The on-site recycled water system shall then be activated and pressurized using a temporary supply of potable water.

3. The on-site recycled water system shall remain pressurized for a minimum period of time specified by the cross-connection control specialist while the potable water system is depressurized (or, in the case of a multi-story building potable water system, remains in a state of reduced pressure). The minimum period of time the potable water system is to remain depressurized shall be determined on a case-by-case basis.

4. All potable water fixtures (interior and exterior)—faucets, hose bibs, drinking fountains, toilets and urinals, supply lines to decorative fountains, etc.—shall be tested and inspected for flow. Some flow may occur from water breaking loose from an air lock in an overhead water line. The amount of flow to cause a concern is a judgment call by the cross-connection specialist. If the potable water system has been truly shut down at its point of connection, then continuous flow from any part of the potable water system (that is beyond the drainage generated by an air lock breaking free) indicates a cross-connection. In the case of a potable water system in a multi-story building, the testing of all fixtures may be used in combination with a pressure gauge (mentioned in No. 1 above), or the pressure gauge may be used instead of the testing of all fixtures. If the potable water system has been truly shut down at its point of connection, then an increase in the potable water system pressure viewed at the gauge over a period of time specified by the cross-connection specialist indicates a cross-connection.

5. All recycled water irrigation control valves and quick-coupling valves, and any other site features that are approved to be supplied with recycled water from the on-site irrigation system (such as supply lines to decorative fountains) shall be tested and inspected for flow. No flow from a recycled water irrigation control valve, quick-coupling valve or any other recycled water fixture indicates that it may be connected to the potable water system.

6. If no cross-connections are discovered, then the temporary supply of potable water shall be disconnected and the recycled water system shall be pressurized using recycled water. The potable water system shall be repressurized. If any cross-connections are found, they must be disconnected and the site must be retested by an AWWA cross-connection specialist per these procedures.

CITY OF MOUNTAIN VIEW

RECYCLED WATER CROSS-CONNECTION TEST CERTIFICATION

Site/Business Name:_____

Property Service Address: _____

Recycled Water Account No.: _____

Recycled Meter No.:_____

Date Test Conducted: _____

Other Attendees at the Test:

Name	Organization	Phone Number

I, _____ , AWWA Cross-Connection Specialist _____
(print name) (No.)

after carefully reviewing the system and conducting the test as per California Plumbing Code Chapter 16A, and City of Mountain View Rules and Regulations, find no indication of a cross-connection between the recycled water system and potable system at the above indicated location.

Signed: _____ Date:_____ Time: _____

Organization: _____ Phone: _____

Address: _____

Excavation Permit No.: _____ Building Permit No.: _____