

**SOUTH MESA WATER COMPANY
CROSS CONNECTION CONTROL PROGRAM**

CHAPTER HISTORY

Adopted by the SMWC Board of Directors.
February 27, 2019

The current Cross Connection Control Program for South Mesa Water Company.

**ORDINANCE OF THE BOARD OF DIRECTORS OF THE
SOUTH MESA WATER COMPANY, COUNTIES OF
RIVERSIDE AND SAN BERNARDINO, CALIFORNIA,
INSTITUTING A CROSS-CONNECTION CONTROL
PROGRAM TO PROTECT THE PUBLIC WATER SYSTEM**

The Board of Directors of the SOUTH MESA WATER COMPANY does ordain as follows:

Section 1. Purpose / Responsibility / Authority. The purpose of this Ordinance is (1) to protect the public water supply against actual or potential contamination through cross connections by isolating sources of contamination that may occur within a water user's premises because of some undiscovered or unauthorized cross connection on the premises; (2) to eliminate existing connections between drinking water systems and eliminate existing connections between drinking water systems and other sources of water that are not approved as safe and potable for human consumption. The Board shall be responsible for the protection of the Company system from contamination or pollution due to the backflow or back-siphonage of contaminants or pollutants through the metered water service connections.

This Ordinance is adopted pursuant to California Water Code Sections 35423 and California Code of Regulations, Title 17 - Public Health - entitled "Regulations Relating to Cross-Connections".

Section 2. Prohibition. It is unlawful for any person, firm, or corporation at any time to make or maintain or cause to be made or maintained, temporarily or permanently, for any period of time whatsoever, any cross-connection between plumbing pipes or water fixtures being served with water by the Company and any other source of water supply or to maintain any sanitary fixture or other appurtenances or fixtures which, by reason of their construction, may cause or allow backflow of water or other substances into the water supply system of the Company and/or the service of water pipes or fixtures of any consumer of the Company.

Section 3. Definitions.

A. Air-Gap Separation. The term "air-gap separation" means a physical break between a supply pipe and a receiving vessel. The air-gap shall be at least double the diameter of the supply pipe measured vertically above the top rim of the vessel, in no case less than one inch. Wherever used in this Ordinance, the term "air-gap separation" shall mean an installation inspected and approved according to the requirements of this Ordinance.

B. Approved Backflow Prevention Assembly. The term "approved backflow prevention assembly" shall mean an assembly which has passed laboratory and field evaluation tests performed by a recognized testing organization which has demonstrated their competency to perform such tests to the California Department of Health Services.

C. Approved Water Supply. The term "approved water supply" means any water supply whose potability is regulated by a State or local health agency.

D. Auxiliary Supply. The term "auxiliary supply" means any water supply on or available to the premises other than the approved water supply.

E. AWWA Standard. The term "AWWA Standard" means an official standard developed and approved by the American Water Works Association (AWWA).

F. Backflow. The term "backflow" shall mean a flow condition, caused by a differential in pressure that causes the flow of water or other liquids, gases, mixtures or substances into the distributing pipes of a potable supply of water from any source or sources other than an approved water supply source. Backsiphonage is one cause of backflow. Backpressure is the other cause.

G. Contamination. The term "contamination" means a degradation of the quality of the potable water by any foreign substance which creates a hazard to the public health, or which may impair the usefulness or quality of the water.

H. Cross-Connection. The term "cross-connection" as used in this Ordinance means any unprotected actual or potential 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. By-pass arrangements, jumper connections, removable sections, swivel or changeover assemblies, or other assemblies through which backflow could occur, shall be considered to be cross-connections.

I. Days. The term days shall mean calendar days

J. Company. The term "Company" means the South Mesa Water Company, Riverside County, San Bernardino County, California.

K. Double Check Valve Assembly. The term "double check valve assembly" means an assembly of two internally loaded, independently acting check valves, including resilient seated shut-off valves on each end of the assembly and test cocks for testing the water tightness of each check valve.

L. Health Agency. The term "health agency" means the California Department of Public Health, or the local health agency with respect to a small water system.

M. Local Health Agency. The term "local health agency" means the Riverside County Department of Environmental Health.

N. Manager. The term "Manager" means the General Manager of the South Mesa Water Company or his designated representative.

O. Person. The term "person" means an individual, corporation, company, association, partnership, municipality, public utility, or other public body or institution.

P. Premises. The term "premises" means any and all areas on a water user's property which are served or have the potential to be served by the public water system.

Q. Recycled Water. The term "Recycled water" means a wastewater, which, as a result of treatment, is suitable for uses other than potable use.

R. Reduced Pressure Principle Backflow Prevention Assembly. The term "reduced pressure principle backflow prevention assembly" means an assembly incorporating two internally loaded, independently operating check valves and an automatically operating differential relief valve located between the two checks, including resilient seated shutoff valves on each end of the assembly, and equipped with necessary test cocks for testing the assembly.

S. Service Connection. The term "service connection" refers to the point of connection of a user's piping to the water supplier's facilities.

T. Water Supplier. The term "water supplier" means the person who owns or operates the approved water supply system.

U. Water User. The term "water user" means any person obtaining water from the District's water supply system.

Section 4. Cross Connection Protection Requirements.

A. General Provisions.

1. Unprotected cross-connections with the public water supply are prohibited.
2. Whenever backflow protection is determined by the Company to be necessary, the water user shall install an approved backflow prevention assembly at his/her expense. User compliance is an express condition of continued water service or establishment of a new water service connection.

3. Wherever backflow protection has been found in the judgment of the Manager to be necessary on a water supply line entering a water user's premises, then any and all water supply lines from the Company's mains entering such premises, buildings, or structures shall be protected by an approved backflow prevention assembly. The type of assembly to be installed will be in accordance with the requirements of this ordinance.

B. Where Protection is required.

1. Each service connection from the Company water system for supplying water to premises having an auxiliary water supply shall be protected against backflow of water from the premises into the public water system unless the auxiliary water supply is accepted as an additional source by the Company, and is approved by the public health agency having jurisdiction.

2. Each service connection from the Company water system for supplying water to any premises on which any substance is handled in such fashion as may allow its entry into the water system shall be protected against backflow of the water from the premises into the public system. This shall include the handling of process waters and waters originating from the Company water system which have been subjected to deterioration in sanitary quality.

3. Backflow prevention assemblies shall be installed on the service connection to any premises having (a) internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the state or local health department and the Company, or (b) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not cross-connections exist.

C. Type of Protection Required.

1. The type of protection that shall be provided to prevent backflow into the approved water supply shall be commensurate with the degree of hazard that exists on the consumer's premises. The type of protective assembly that may be required (listing in an increasing level of protection) includes: Double Check Valve Assembly (DC), and Reduced Pressure Principle Backflow Prevention Assembly (RP), and an Air-Gap Separation (AG). The water user may choose a higher level of protection than required by the Company. The minimum types of backflow protection required to protect the approved water supply, at the user's water connection to premises with varying degrees of hazard are given in Table 1 as attached to this Resolution as Exhibit "A" and incorporated by reference. Situations, which are not covered in Table 1, shall be evaluated on a case-by-case basis and the Company shall determine the appropriate backflow protection.

2. Two or more services supplying water from different street mains to the same building, structure, or premises through which an interstreet main flow may occur, shall have at least an approved double check valve assembly on each water service to be located adjacent to and on the property side of the respective meters

Section 5. Backflow Prevention Assemblies.

A. Approved Backflow Prevention Assemblies.

1. Only backflow prevention assemblies, which have been approved by the Company, shall be acceptable for installation by a water user connected to the Company's potable water system.

2. The Company will provide, upon request, to any affected customer, a list of approved backflow prevention assemblies.

B. Backflow Prevention Assembly Installation.

1. Backflow prevention assemblies shall be installed in a manner prescribed in Section 7603, Title 17 of the California Code of Regulations. Location of the assemblies should be as close as practical to the user's connection. The Company shall have the final authority in determining the required location of a backflow prevention assembly.

a. Air-Gap Separation (AG). The air-gap separation shall be located on the user's side of and as close to the service connection as is practical. All piping from the service connection to the receiving tank shall be above grade and be entirely visible. No water use shall be provided from any point between the service connection and the air-gap separation. The water inlet piping shall terminate a distance of at least two (2) pipe diameters of the supply inlet, but in no case less than one (1) inch above the overflow rim of the receiving tank.

b. Reduced Pressure Principle Backflow Prevention Assembly (RP). The approved reduced pressure principle backflow prevention assembly shall be installed on the user's side of and as close to the service connection as is practical. The assembly shall be installed so that it is readily accessible for maintenance and testing. Water supplied from any point between the service connection and the RP assembly shall be protected in a manner approved by the Company.

- c. Double Check Valve Assembly (DC). The approved double check Valve assembly shall be located as close as practical to the user's connection and shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance. If a double check valve assembly is put below grade, it must be installed in a vault such that there is a minimum of six inches (6") between the bottom of the vault and the bottom of the assembly, so that the top of the assembly is no more than a maximum of eight inches (8") below grade, so there is a minimum of twenty- four inches (24") of clearance between the side of the assembly with the test cocks and the side of the vault, and so there is a minimum of twelve inches (12") clearance between the other side of the assembly and the side of the vault. Special consideration must be given to double check valve assemblies of the "Y" type. These assemblies must be installed on their "side" with the test cocks in a vertical position so that either check valve may be removed for service without removing the assembly. Vaults, which do not have an integrated bottom, must be placed on a three-inch (3") layer of gravel.

C. Backflow Prevention Assembly Testing and Maintenance.

1. It shall be the responsibility of the water user to install all required assemblies in accordance with the Company's Standard Drawings and Specifications. The Company shall perform initial certification of all devices. Thereafter, it shall be the duty of the water user at any premises where backflow prevention assemblies requiring annual testing are installed to have certified inspections and operational tests made at least once per year. In those instances where the Company deems the hazard to be great enough, it may require certified inspections at more frequent intervals. These inspections and tests shall be at the expense of the water user, and shall be performed by an approved certified tester or by Company personnel, if available. ~~It shall~~ be the duty of the Company to see that these timely tests are made. These devices shall be repaired, overhauled, or replaced at the expense of the water user whenever said devices are found to be defective. Records of such tests, repairs, and overhaul shall be submitted to the Company on standard maintenance form. Any approved backflow prevention assembly shall be the property of the water user and Company shall have no responsibility or liability for the cost of operation, maintenance, repair or replacement thereof.

2. The Company will supply affected water users with a list of persons acceptable to the Company to test backflow prevention assemblies. The Company will notify affected customers by mail when annual testing of an assembly is needed and also supply users with the necessary forms which must be filled out each time an assembly is tested or repaired. The backflow prevention assembly tester shall provide both the water user and the Company with a copy of the test results.

D. Backflow Prevention Assembly Removal.

1. Approval must be obtained from the Company before a backflow prevention assembly is removed, relocated or replaced.
 - a. Removal. The use of an assembly may be discontinued and the assembly removed from service only upon determination by the Company that a hazard no longer exists or is not likely to be created in the future;
 - b. Relocation. An assembly may be relocated following confirmation by the Company that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the assembly;
 - c. Repair. An assembly may be removed for repair, provided the water use is either discontinued until repair is completed and the assembly is returned to service, or the service connection is equipped with other backflow protection approved by the Company. A retest will be required following the repair of the assembly; and
 - d. Replacement. An assembly may be removed and replaced provide the water use is discontinued until the replacement assembly is installed. All replacement assemblies must be in compliance with this Ordinance.

E. Upgrading of Existing Backflow Prevention Devices.

The Manager may require the customer to upgrade an existing backflow prevention assembly, which, in the opinion of the Manager, is a type that does not provide adequate protection for the degree of potential hazard, which exists on the customer's premises. The upgraded shall be at customer's expense and may include complete replacement and relocation of the backflow prevention assembly, and or the installation of additional devices.

Section 6. User Supervisor. At each premises where it is necessary, in the opinion of the Company, a user supervisor shall be designated by and at the expense of the water user. This user supervisor shall be responsible for the monitoring of the backflow prevention assemblies and for avoidance of cross-connections. In the event of contamination or pollution of the drinking water system due to a cross-connection on the premises, the Company shall be promptly notified by the user supervisor so that appropriate measures may be taken to overcome the contamination. The water user shall inform the Company of the user supervisor's identity on, as a minimum, an annual basis and whenever a change occurs.

Section 7. Administrative Procedures.

A. Water System Survey

1. The Company shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the Company upon request for review of possible cross-connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention assembly is necessary to protect the public water system, the required assembly must be installed before service will be granted.

2. The Company may require an on-premise inspection to evaluate cross-connection hazards. The Company will notify the affected water user for the need of inspection. If, in the judgment of the Manager, an approved backflow prevention device is required at any metered water service connection for the safety of the District system, the Manager shall give notice in writing to the affected water user to install an approved backflow prevention device at each of such water user's metered water service connections. Within the time prescribed by the Manager, the water user shall install such approved device or devices at the water user's own expense; and failure, refusal or inability on the part of the water user to install said device or devices shall immediately constitute a ground for discontinuing water service to such metered water service connections until such device or devices have been properly installed.

3. The Company may, at its discretion, require a reinspection for cross-connection hazards of any premise to which it serves water. The Company will notify the affected water user for the need of inspection. Any water user who cannot or will not allow an on-premise inspection of his/her piping system shall be required to install the backflow prevention assembly the Company considers necessary.

4. All water user systems shall be open for inspection at all reasonable times to authorized representatives of the Company to enable the Company to ascertain the existence of cross-connection or other structural or sanitary hazards, including violations of this Ordinance. When such a condition becomes known, the Manager shall deny or immediately discontinue service to the premises by providing for a physical break in the service line until the customer has corrected the condition(s) in conformance with State laws and Company ordinances relating to plumbing and water supplies, and with regulations adopted pursuant thereto.

B. Customer Notification – Assembly Installation

1. The District will notify the water user of the survey findings, listing the corrective actions to be taken if any are required. A period of (60) days will be given to complete all corrective actions required, including installation of backflow prevention assemblies.

2. A second notice will be sent to each water user who does not take the required corrective actions prescribed in the first notice within the sixty-day period allowed. The second notice will also include a non-compliance fee of \$50.00. The water user has fourteen (14) days to take the corrective action. The notice shall state that if no action is taken within the fourteen (14) day period, the Company will terminate water service to the affected water user until the required corrective actions are taken. The notice shall advise the customer that a Health Agency hearing may be requested according to Section VII

D.2 below, but the request must be received prior to the date scheduled for service termination.

3. The Company may provide additional notification as it deems necessary.

4.

C. Customer Notification - Testing and Maintenance

1. The Company will notify each affected water user when it is time for the backflow prevention assembly installed on their service connection to be tested. The notice shall contain the following information:

a. The service location and account number (or other appropriate identification number).

b. A statement that the water user is responsible for providing for the routine maintenance, repair, and testing.

c. That the testing requirement is made under the authority of the California Water Code section 35423, California Code of Regulations, Title 17, and of this Ordinance.

d. A deadline of 60 days by which the assembly must be tested, and repaired if necessary.

e. That if the water user fails to test or repair an assembly within the time period required by the notice, the Company may terminate water service to the affected water user.

f. The Company contact person, including address and phone number.

- g. A report form for the water user to use to submit the test results.
- h. A list of certified or approved assembly testers.

5. A second notice shall be sent to each water user which does not have his/her backflow prevention assembly tested as prescribed in the first notice within the 60-day period allowed. The second notice will give the water user a fourteen (14) day period to have his/her backflow prevention assembly tested. This notice shall include the following information.

- a. A reiteration of the cross-connection hazards found on the user's premises, and the required corrective actions.
- b. A second deadline of fourteen (14) days for either correcting the problem or scheduling an office hearing to explain why the requirements should be postponed or eliminated. This also includes a \$50.00 fee for non-compliance.
- c. A statement of the Company's intention to terminate water service to the user's premises should he fail to comply with the new deadline. The notice shall advise the customer that a Health Agency hearing may be requested according to Section VII D.2 below, but the request must be received prior to the date scheduled for service termination.
- d. Information regarding the extra charges the user will have to pay to reestablish water service after it is terminated.

6. The Company may provide additional notification as it deems necessary. If no action is taken within the prescribed time period, the Company may terminate water service to the affected water user until the subject assembly is tested.

B. Water Service Termination When the Company encounters water uses that represent a clear and immediate hazard to the potable water supply that cannot be immediately abated, the Company shall institute the procedure for discontinuing the Company water service.

1. Basis for Termination

Service of water to any premises shall not be placed in service by the Company unless the Company system is protected, as required by State laws and regulations and by this Ordinance. Service of water to any premises shall be immediately discontinued by the Company if a backflow prevention assembly required by this Ordinance is not installed, tested, and maintained, or if it is found that a backflow prevention assembly has been removed, bypassed, or if any unprotected cross-connection exists on the premises. Service will not be restored until such conditions or defects are corrected.

2. Right of Health Agency Hearing for Water User

If the customer files with the Company a written protest of the degree of hazard involved and the commensurate degree of protection required to be provided, the matter shall be referred by the Company to the appropriate health agency. If the protest involves a new meter installation, the Company shall not commence water service until after the health agency has delivered its written decision to the Company. The written decision of the health agency shall be final.

E. Maintenance of Records

The Company shall maintain such records so as to be able to effectively manage a cross-connection control program. The records shall include the following information for each backflow prevention assembly in the water system:

1. Identification information:
 - Name
 - Address
 - Account number (or other identification number)
 - Responsible person
 - Type of business;
2. The date of the most recent cross-connection survey performed at this location;
3. Type of hazard(s);
4. Location of assembly;
5. Type of assembly; including make, model, size, serial number, recommended frequency of testing;
6. Record of testing and repairs;
7. Comments, notes on any problems with the assembly.

Records shall also be kept on surveys made of premises where no backflow protection was required.

Section 8. Charges. The Board of Directors shall establish, and may from time to time alter, a schedule of fees and charges to offset the Company's costs incurred under this Ordinance. It shall be the policy of the Company that the water user whose premises cause the need to protect the Company water supply shall be responsible to cover the cost of that protection, including the Company's costs. Fees and charges may include, but are not limited to:

A. The cost to initially determine the need for protection and the type of backflow assembly required.

B. The cost to annually review compliance with this Ordinance, including any costs of inspection, testing, and certification.

C. The cost to disconnect and/or reconnect a service because of noncompliance with this Ordinance.

D. Any costs incurred by Company in connection with the operation, maintenance and repair or replacement of a backflow assembly.

Section 9. Effective Date. The Ordinance shall take effect and be in force immediately upon its adoption.

NOW, THEREFORE, BE IT RESOLVED, DETERMINED AND ORDERED by the Board of Directors of the South Mesa Water Company that Ordinance No. 2019-2 be and it hereby is rescinded.

ADOPTED, SIGNED AND APPROVED this 27th day of February 2019.

A handwritten signature in cursive script that reads "George Jorritsma". The signature is written in black ink and is positioned above a solid horizontal line.

George Jorritsma
Board President
South Mesa Water Company

EXHIBIT "A"

**TABLE 1
TYPE OF BACKFLOW PROTECTION REQUIRED**

<i>Degree of Hazard</i>	Minimum Type of Backflow Prevention
(a) Sewage and Hazardous Substances	
(1) Premises where there are waste water pumping and/or treatment plants and there is no interconnection with the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(2) Premises where hazardous substances are handled in any manner in which the substances may enter the potable water system. This does not include a single-family residence that has a sewage lift pump. A RP may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(3) Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected.	RP
(b) Auxiliary Water Supplies	
(1) Premises where there is an unapproved auxiliary water supply which is interconnected with the public water system. A RP or DC may be provided in lieu of an AG if approved by the health agency and water supplier.	AG
(2) Premises where there is an unapproved auxiliary RP water supply and there are no interconnections with the public water system. A DC may be provided in lieu of a RP if approved by the health agency and water supplier.	RP
(c) Recycled Water	
(1) Premises where the public water system is used to supplement the recycled water supply.	AG
(2) Premises where recycled water is used, other than as allowed in paragraph (3), and there is no interconnection with the potable water system.	RP
(3) Residences using recycled water for landscape irrigation as part of an approved dual plumbed use area established pursuant to sections 60313 through 60316 unless the recycled water supplier obtains approval of the local public water supplier, or the Department if the water supplier is also the supplier of the recycled water, to utilize an alternative backflow protection plan that includes an annual inspection and annual shutdown test of the recycled water and potable water systems pursuant to subsection 60316(a).	DC

(d) Fire Protection Systems

(1) Premises where the fire system is directly supplied from the public water system and there is an unapproved auxiliary water supply on or to the premises (not interconnected). DC

(2) Premises where the fire system is supplied from the public water system and interconnected with an unapproved auxiliary water supply. A RP may be provided in lieu of an AG if approved by the health agency and water supplier. AG

(3) Premises where the fire system is supplied from the public water system and where either elevated storage tanks or fire pumps which take suction from private reservoirs or tanks are used. DC

(4) Premises where the fire system is supplied from the public water system and where recycled water is used in a separate piping system within the same building. DC

(e) Dockside Watering Points and Marine Facilities

(1) Pier hydrants for supplying water to vessels for any purpose. RP

(2) Premises where there are marine facilities. RP

(f) Premises where entry is restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that do not exist. RP

(g) Premises where there is a repeated history of cross-connections being established or re-established. RP

Appendix A

ADMINISTRATIVE GUIDANCE TYPES OF FACILITIES REQUIRING BACKFLOW PROTECTION

Backflow protection will be required when any of the following conditions or situations exists. **This list is not necessarily all inclusive of the conditions where backflow protection will required.** Conditions or situations not listed will be evaluated on a case-by-case basis; final determination shall be at the judgment of the manager that maintains responsibility for the administration of the District's cross connection control program.

CONDITIONS:

- a. Pressure in the customer system may at any time exceed the water pressure in the District system.
- b. The customer system includes more than one metered water service connection.
- c. Auxiliary water system (not interconnected).
- d. The customer system is so extensive that it is not easily observed or checked as to maintenance and use.
- e. Building with house pump and/or storage tank.
- f. Properties ½ acre or more in size.
- g. Commercial properties.
- h. Industrial facilities.
- i. Agricultural and Ag/Domestic accounts.
- j. Properties with recycled water.
- k. Winery.
- l. Ranches.
- m. Auxiliary water system.
- n. Sewage treatment plant or pump station.
- o. Building with sewage lift.
- p. Cannery, packing house, or reduction plant.
- q. Car wash facilities.
- r. Centralized heating and air conditioning plant.
- s. Chemical plant.
- t. Civil works (facilities not subject to Riverside plumbing inspection).
- u. Dye works.
- v. Film processing or other laboratory facilities.
- w. Fire system.
- x. Hospital, mortuary.
- y. Schools.
- z. Food process plant.
- aa. Restaurant.
- bb. Rendering plant.
- cc. Veterinarian or pet hospital.
- dd. Steam boiler.

- ee. Plating facility or metal finisher.
- ff. Irrigation system.
- gg. Parks and recreational facilities.
- hh. Golf courses.
- ii. Manufacturing, processing, or other fabrication plant.
- jj. Paper production.
- kk. Restricted, classified, or other closed facility.
- ll. Sand and gravel plant.
- mm. Properties where cross-connections are maintained.
- nn. Beauty salons.
- oo. Dockside watering.
- pp. Dry cleaners.
- qq. Apartments and multi-family developments.
- rr. Public swimming and bathing places.
- ss. Properties with elevated water storage.
- tt. Commercial laundry.
- uu. Dairy.
- vv. Cold storage plant.
- ww. Mobile home park.
- xx. Any connection that the manager may consider a sufficient hazard.