PREPARED BY:

WEST YOST
Water. Engineered.

moulton niguel
water district

MOULTON NIGUEL WATER DISTRICT

CROSS-CONNECTION CONTROL PLAN

IN ACCORDANCE WITH THE CROSS-CONNECTION CONTROL POLICY HANDBOOK ADOPTED IN 2023

JUNE 2025

Cross-Connection Control Plan

Prepared for

Moulton Niguel Water District

Project No. 774-A1-25-25

The information submitted in this Cross-Connection Control Plan is drafted to be in compliance with the State Water Resources Control Board's Cross-Connection Control Policy Handbook and an accurate description of the Moulton Niguel Water District's cross-connection control program intended to protect the Public Water System.

June 30, 2025

Public Water System Representative
Alex Thomas, Principal Engineer

Date

June 27, 2025

Prepared by: Courtney Rubin
AWWA Cross-Connection Control Specialist #01854

Date

REGISTERED PROFESSIONAL ENGINEER
ALEXANDRE L. BUCHER
No. C66741
Exp. 09/30/26
CIVIL
STATE OF CALIFORNIA

June 27, 2025

QA/QC Review: Alex Bucher
AWWA Cross-Connection Control Specialist #10708

Date

Moulton Niguel Water District Contact Information			
Title	Name	Contact Information	Backflow Certifications
Director of Infrastructure and Reuse	David Larsen	Dlarsen@mnwd.com	
Principal Engineer	Alex Thomas	AThomas@mnwd.com	
Senior Inspector/Cross-Connection Control Program Coordinator	Jesus Calvillo	JCalvillo@mnwd.com	AWWA Backflow Prevention Assembly Tester No. 16880 AWWA Cross-Connection Control Specialist No. 02952

Table of Contents

Table of Contents

Table of Contents

LIST OF TABLES

LIST OF REFRENCES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

AG	Air Gap Separation
AMI	Advanced Metering Infrastructure
ANSI	American National Standard Institute
ASSE	American Society of Safety Engineers
BPA	Backflow Prevention Assembly
BPA Tester	Backflow Prevention Assembly Tester
CCCP	Cross-Connection Control Plan
CCCPH	Cross-Connection Control Policy Handbook
CCR	California Code of Regulation
CHSC	California Health and Safety Code
DC	Double Check Valve Backflow Prevention Assembly
DCDA	Double Check Detector Backflow Prevention Assembly
DDW	Division Of Drinking Water
HCA	Orange County Health Care Agency
Program	Cross-Connection Control Program
PVB	Pressure Vacuum Breaker Backsiphonage Prevention Assembly
PWS	Public Water System
RP	Reduced Pressure Principle Backflow Prevention Assembly
RPDA	Reduced Pressure Principle Detector Backflow Prevention Assembly
RW	Recycled Water
SWRCB	State Water Resource Control Board

1.0 INTRODUCTION

The State Water Resources Control Board (SWRCB) adopted the Cross-Connection Control Policy Handbook (CCCPH) on December 19, 2023. The effective date for the CCCPH was July 1, 2024 replacing the previous regulations housed under Title 17, Chapter V, Sections 7583-7622 under the California Code of Regulation (CCR) (Title 17). Title 17 became inoperative and repealed 90 days after July 1, 2024 on October 1, 2024. The CCCPH expands on the previous Title 17 requirements for initial and follow-up hazard assessments, program training, backflow prevention testing and certification, maintenance of records, incident response, reporting and notification, public outreach and education, and local entity coordination. The CCCPH requires Moulton Niguel Water District (MNWD), the Public Water Systems (PWS), to develop a Cross-Connection Control Plan (CCCP) to describe how the PWS will manage and administer their Cross-Connection Control Program (Program).

Reference A incudes the most recent version to date of the CCCPH (Adopted 2023, Amended June 17, 2025).

1.1 Purpose

The intent of this document is to describe the Program implemented and administered by MNWD. The purpose of this CCCP is:

1. To protect the PWS against actual or potential contamination that may occur within a water user's premises because of some undiscovered or unauthorized cross-connection on the premises;
2. To ensure elimination of existing connections between potable water systems and other sources of water that are not approved as safe and potable for human consumption;
3. To ensure elimination of unprotected cross-connections between potable water systems and sources of contamination; and,
4. To prevent the making of unprotected cross-connections in the future;
5. To promote public awareness for cross connection control.

1.2 MNWD Service Area Description

MNWD is a public special district operating a public community water system, and is governed by a publicly elected Board of Directors.

MNWD serves communities across South Orange County, including Laguna Niguel, Aliso Viejo, Mission Viejo, Laguna Hills, Dana Point, and San Juan Capistrano. The District provides drinking water, recycled water, and wastewater services to more than 170,000 customers across its approximately 37 square miles service area. The majority of water services are provided to:

- Single-family homes
- Multi-family developments
- Commercial businesses
- Irrigation

MNWD's potable water distribution system includes 28 storage reservoirs, 655 miles of potable water distribution pipelines, 25 pump stations, and 21 pressure reducing stations and flow control facilities.

Since the number and type of connections will vary over time, the exact number and types of services can be provided to the SWRCB upon request. As of June 2025, MNWD serves potable water to approximately 49,350 residential/multifamily accounts, 2,000 commercial/industrial/institutional accounts, 1,350 irrigation accounts, and 1,000 fire protection systems.

2.0 DEFINITIONS (CCCPH 3.1.1)

Air-Gap Separation (AG)

A physical vertical separation of at least two (2) times the effective opening, as defined in section 207.0 of the California Plumbing Code, between the free-flowing discharge end of a potable water supply pipeline and the flood level of an open or non-pressurized receiving vessel, and in no case less than 1-inch.

Approved Water Supply

A water source that has been approved by the SWRCB for domestic use in a PWS and designated as such in a domestic water supply permit issued pursuant to section 116525 of the CHSC.

Auxiliary Water Supply

A source of water, other than an approved water supply, that is either used or equipped, or can be equipped, to be used as a water supply, and is located on the premises of, or available to, a water user.

Backflow

The undesirable flow of water and/or other liquids, gases, or other substances, into a PWS's distribution system or approved water supply.

Backsiphonage or backpressure are causes of backflow.

Backflow Prevention Assembly (BPA)

A mechanical assembly designed and constructed to prevent backflow, such that while in-line it can be repaired and maintained and its ability to prevent backflow can be field tested, inspected and evaluated.

Backflow Prevention Assembly Tester (BPA Tester)

A person who is certified as a BPA tester pursuant to Section 4 of this CCCP.

Community Water System

A PWS that serves at least 15 service connections used by yearlong residents or regularly serves at least 25-year-long residents of the area served by the system.

Contamination

The impairment of the quality of water by any substance, in such a way as to create an actual hazard to the public health through poisoning, the spread of disease, etc.

Cross-Connection

Any actual or potential connection or structural arrangement between a PWS, including a piping system connected to the PWS and located on the premises of a water user or available to the water user, and any source or distribution system containing liquid, gas, or other substances not from an approved water supply.

By-pass arrangements, jumper connections, removable sections, or other devices through which backflow could occur shall be considered cross-connections.

Cross-Connection Control Program Coordinator

The designated individual involved in the development of and be responsible for reporting, tracking, and other administration duties for the Program.

Cross-Connection Control Specialist

A person who is certified as a Cross-Connection Control Specialist pursuant to Section 4 of this CCCP.

Customer's Water System

All facilities beyond the service meter. The system or systems may include both potable and non-potable water systems.

Degree of Hazard

Either a pollutant (non-health hazard) or contaminant (health hazard); derived from the assessment of the materials which may come in contact with the distribution system through a cross connection.

Distribution System

Any combination of pipes, tanks, pumps, etc., which delivers drinking water from a source or treatment facility to the consumer and includes:

a) Disinfection facilities for which no Giardia or virus reduction is required pursuant to section 64654(a) of CCR Title 22.
b) The composite of all distribution systems of a public water system.

Double Check Valve Backflow Prevention Assembly (DC)

An assembly consisting of two independently acting internally loaded check valves, with tightly closing shut-off valves located at each end of the assembly (upstream and downstream of the two check valves) and fitted with test cocks that enable accurate field testing of the assembly. This type of assembly may only be used for protection from low hazard cross-connections, backsiphonage, and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

Double Check Detector Backflow Prevention Assembly (DCDA)

A double check valve backflow prevention assembly that includes a bypass with a water meter and double check backflow prevention assembly, with the bypass's water meter accurately registering flow rates up to 2 gallons per minute and visually indicating all rates of flow. This type of assembly may only be used for protection from low hazard cross-connections, backsiphonage, and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

Double Check Detector Backflow Prevention Assembly – Type II (DCDA-II)

A double check valve backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to 2 gallons per minute and visually indicating all rates of flow. This type of assembly may only be used for protection from low hazard cross-connections, backsiphonage, and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

Hazard Assessment

An evaluation of a user premises designed to evaluate the types and degrees of hazard at a user's premises.

High Hazard Cross-Connection

A cross-connection that poses a threat to the potability or safety of the public water supply.

Materials entering the public water supply through a high hazard cross-connection are contaminants or health hazards. See Appendix D of the CCCPH.

Low Hazard Cross-Connection

A cross-connection that has been found to not pose a threat to the potability or safety of the public water supply but may adversely affect the aesthetic quality of the potable water supply.

Materials entering the public water supply through a low hazard cross-connection are pollutants or non-health hazards.

Pollutant

A substance or material which impairs the quality of the water to a degree which does not create a hazard to the public health, but which does adversely and unreasonably affect the aesthetic qualities of such waters for domestic use.

Potable Water

Shall mean that water furnished by MNWD to the customer for domestic use, which is pure, wholesome, potable, and does not endanger the lives or health of human beings, and which conforms to the latest edition of the United States Public Health Service Drinking Water Standards or any other applicable standards.

Premises

All areas on a customer's property which are served or have the potential to be served by the PWS

Containment

Protection of a PWS's distribution system from backflow from a user's premises through the installation of 1 or more air gaps or BPAs, installed as close as practical to the user's service connection, in a manner that isolates the water user's water supply from the PWS's distribution system.

Pressure Vacuum Breaker Backflow Prevention Assembly (PVB)

An assembly with an independently acting internally loaded check valve and an independently acting loaded air inlet valve located on the discharge side of the check valve; with test cocks and tightly closing shutoff valves located at each end of the assembly that enable accurate field testing of the assembly. This type of assembly may only be used for protection from low or high hazard cross connection backsiphonage events and is not to be used to protect from any backpressure events.

A schematic of this assembly is provided in Appendix C of the CCCPH.

Public Water System (PWS)

A system for the provision of piped water to the public for human consumption which has five or more service connections or regularly serves an average of 25 individuals daily at least 60 days out of the year. Additionally, consists of the source facilities and the distribution system and shall include all those facilities of the water system under the complete control of MNWD up to the point where the Customer's Water System begins the service connection.

Recycled Water (RW)

Wastewater which as a result of treatment is suitable for uses other than potable use.

Reduced Pressure Principle Backflow Prevention Assembly (RP)

An assembly with two independently acting internally loaded check valves, with a hydraulically operating mechanically independent differential-pressure relief valve located between the check valves and below the upstream check valve. The assembly shall have shut-off valves located upstream and downstream of the two check-valves, and test cocks to enable accurate field testing of the assembly. This type of assembly may be used for protection from low and high hazard back siphonage and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

Reduced Pressure Principle Detector Backflow Prevention Assembly (RPDA)

A reduced pressure principle backflow prevention assembly that includes a bypass with a water meter and reduced pressure principle backflow prevention assembly, with the bypass's water meter accurately registering flow rates up to 2 gallons per minute and visually indicating all rates of flow. This type of assembly may be used for protection from low and high hazard backsiphonage and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

Reduced Pressure Principle Detector Backflow Prevention Assembly – Type II (RPDA-II)

A reduced pressure principle backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to 2 gallons per minute and visually indicating all rates of flow. This type of assembly may be used for protection from low and high hazard backsiphonage and backpressure events.

To be approved these assemblies must be accessible for in-line maintenance and testing and be installed per MNWD Standards.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

Service Connection

The point where a water user's piping is connected to the PWS or the point in the customer's water system where the PWS can be protected from backflow using an AG or a BPA.

Spill-Resistant Pressure Vacuum Breaker Backsiphonage Prevention Assembly (SVB)

An assembly with an independently acting internally-loaded check valve and an independently-acting loaded air inlet valve located on the discharge side of the check valve; with shutoff valves at each end and a test cock and bleed/vent port, to enable accurate field testing of the assembly. This type of assembly may only be used for protection from low or high hazard cross-connection backsiphonage events and is not to be used to protect from any backpressure events.

A schematic of this assembly is provided in Appendix C of the CCCPH which is included in Reference A of this document.

State Water Resource Control Board (SWRCB)

State Water Resources Control Board or the local primacy agency having been delegated the authority to enforce the requirements of the CCCPH by the State Water Resources Control Board.

Swivel-Ell Backflow Prevention Assembly

An assembly consisting of a reduced pressure principle backflow prevention assembly combined with a changeover piping configuration (swivel-ell connection) designed and constructed pursuant to Section 5 of this CCCP.

Used Water

Any water supplied by MNWD from the PWS to a Customer's Water System after it has passed through the service connection and is no longer under the control of MNWD.

User Supervisor

A person designated by a water user to oversee a water use site and responsible for the avoidance of cross-connections.

Water System

The water system shall be considered as made up of two parts: The PWS and Customer's Water System.

Water Supplier

MNWD, who owns and operates the PWS.

Water User

Any person(s) or entity obtaining water from MNWD.

3.0 LEGAL AUTHORITY (CCCPH 3.1.3 & ARTICLE IV RULES AND REGULATIONS)

MNWD administers the Program in accordance with Article IV of their Rules and Regulations (Article IV), which was updated February 1, 2020.

Within Article IV and the CCCP, MNWD has the legal authority to implement corrective actions if a water user fails to comply in a timely manner with provisions regarding the installation, inspection, field testing, or maintenance of a BPA required by the CCCPH. MNWD's corrective actions include the ability to discontinue water service until the correction has been made.

Article IV is included in Reference B of this document.

MNWD is currently developing proposed updates to its Rules and Regulations for Cross-Connection Control, which will include references to the CCCPH.

3.1 Program Administration (CCCPH 3.1.3)

The program is administered within MNWD's Engineering Department (Department). The Senior Cross-Connection Inspector/CCC Program Coordinator holds Cross-Connection Control Specialist and Backflow Prevention Assembly Tester certifications and is responsible for carrying out the administrative responsibilities of the Program. The program also includes a Cross-Connection Inspector who holds certifications as a Cross-Connection Control Specialist and a Backflow Prevention Assembly Tester. Additionally, there are three Recycled Water Inspectors, each certified as a Cross-Connection Control Specialist. Table 3-1 includes a breakdown of the Cross-Connection Control Specialists within MNWD.

Table 3-1. Certified Staff

Working Title	Number of Staff	Certifications
CCC Program Coordinator/Senior Inspector	1	Backflow Prevention Assembly Tester Cross-Connection Control Specialist
Cross-Connection Inspector	1	Backflow Prevention Assembly Tester Cross-Connection Control Specialist
Recycled Water Inspector	3	Cross-Connection Control Specialist

4.0 BACKFLOW PREVENTION ASSEMBLY TESTERS AND CROSS-CONNECTION CONTROL SPECIALISTS

This section specifies the certification requirements for BPA Testers and Cross-Connection Control Specialists.

4.1 CCCPH Backflow Prevention Assembly Tester Requirements (CCCPH 3.4.1 & Article IV Exhibit G - 107)

Chapter 3, Article 4 of the CCCPH provides the requirements of a SWRCB recognized and American National Standards Institute accredited organization certifying BPA Testers. Within an accredited organization, the program must include provisions for revocation of a BPA tester certification and a publicly available list of certified backflow prevention assembly testers. Certification from an accredited organization requires completion of a program that includes the following:

- Timed and proctored written exams with prescribed number of test questions and covering specified material.
- Performance of a hands-on exam demonstrating proficiency in accurately determining the operating condition of an RP, DC, PVB, and SVB.
- Recertification no less frequently than every three years including both a written and performance exam.
- Prerequisite of either two years prior experience or completion of an instructional training course.

4.1.1 Approved Backflow Prevention Assembly Tester List

The Orange County Health Care Agency (HCA) maintains a list of approved BPA Testers who are authorized to perform backflow testing related work within the County. MNWD only permits testers from this list to perform work within the service area. The list of certified BPA Testers is provided to assembly owners with the test notification.

Below are the requirements to be included on the HCA's list:

- Complete and sign a Backflow Tester Application.
- Complete and sign a Backflow Tester Code of Conduct form.
- A current headshot photo
- The BPA Tester must hold a valid certification from an SWRCB accredited organization for backflow prevention assembly testing.
- The tester must provide a yearly copy of tester gauge calibration report results including the make and model of field-testing equipment.

BPA Testers are required to ensure that the HCA and MNWD have the most recent copy of their certifications and tester gauge calibration reports. Appendix A includes the HCA's Backflow Tester Application and Code of Conduct Form.

Testers may be removed from the approved list if any of the following conditions apply:

- Certification expires
- Gauge calibration expires
- Improper testing or repairs
- Falsifying results or documents
- Failure to enter completed tests reports online
- Failure to pay necessary fees

MNWD will notify HCA and the accrediting agency of misconduct in the event a tester falsifies results or documents.

4.1.2 Cross-Connection Control Specialist Requirement (CCCPH 3.4.2)

Cross-Connection Control Specialist(s) shall maintain valid certification from a certifying organization recognized by the SWRCB pursuant to CCCPH Chapter 3 Article 4. Certification requires completion of a program that includes the following:

Timed and proctored written exams with prescribed number of test questions and covering specified material.

- Completion of an instructional training course
- Recertification no less frequently than every three years
- Recertification through an exam or 12 contact hours of continuing education, or a combination of both equivalent to either

Similar to programs requirements for BPA testers, the program for Cross-Connection Control Specialists from the accredited organization must contain:

- Provisions for revocation of a specialist's certification
- A publicly available list of certified specialists
- A valid backflow prevention assembly tester certification as well as completion of an instructional training course for initial certification or when an examiner has not held a valid certification for three or more years

Cross-Connection Control Specialists working for MNWD will be required to be certified from an approved accredited organization.

5.0 CROSS-CONNECTION CONTROL PROGRAM REQUIREMENTS

Unprotected cross-connections with the PWS are prohibited. Whenever backflow protection has been found necessary, MNWD will require the water user to install an approved backflow protection, by and at the expense of the user, for continued service or before a new service is granted.

The installation and type of backflow protection shall be in accordance with the requirements of this CCCP, MNWD's Article IV, and Appendix D of the CCCPH. If backflow protection is found to be removed or bypassed, water service may be discontinued until the issue is corrected, and fines may be imposed.

Topics addressed in this section include:

- Backflow Protection Requirements
- Protection Requirements Based on Degree of Hazard
- Hazard Assessments

5.1 Backflow Protection Requirements (CCCPH 3.3.2)

5.1.1 Backflow Protection General Requirements

Backflow protection is required when the following conditions are present or expected to occur:

- When a premises contains an auxiliary water supply the water supply to the premises 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 MNWD and is approved by the HCA and SWRCB.
- Premises where substances are handled in a way that could enter the water system must be protected against backflow into the public water supply. This shall include the handling of process waters and waters originating from the MNWD water system which have been subjected to deterioration in sanitary quality.
- When a premises has internal cross-connections that cannot be permanently corrected or controlled to the satisfaction of MNWD or HCA.
- When a premises has intricate piping arrangements or where entry to all or portions of the site are restricted so that inspections for cross-connections cannot be made with sufficient frequency or at sufficiently short notice to assure that no cross-connection exist.
- When a premises has a history of repeated cross-connections.

MNWD must ensure its distribution system is protected from backflow from identified hazards through the proper installation, continued operation, and field testing of an approved BPA according to Sections 6 and 7 of this CCCP. When a DC is required or referenced in this CCCP, a DCDA or DCDA-II type of assembly may be substituted if appropriate. When an RP is required or referenced in this CCCP, an RPDA or RPDA-II type of assembly may be substituted if appropriate.

The BPA installed must be no less protective than that which is commensurate with the degree of hazard at a user premises as determined by the District.

Unless specified otherwise in this section and in Section 3.2.2 of the CCCPH, MNWD must, at all times, protect its distribution system from high hazard cross-connections (see Appendix D of the CCCPH for examples), through premises containment, through the use of AG(s) or RP(s).

Following SWRCB review and approval, MNWD may use internal protection in lieu of premises containment when premises containment is infeasible.

5.2 Protection Requirements Based on Degree of Hazard (Article IV Exhibit G - 102)

The type of backflow protection that is required is determined based on the degree of hazard that is present at a premises. MNWD will determine the minimum level of protection required.

See Appendix B for the CCCPH Appendix D: High Hazard List for additional information on high hazard cross-connection control premises containment.

5.2.1 Toxic, Sewage, or Hazardous Substances

1. Premises where toxic or hazardous substances are handled in any manner which may allow for contamination of the PWS shall be protected by an AG or an RP at the service connection.
2. Premises where the PWS is used to supplement the RW supply shall be protected by an AG.
3. Premises where RW is used and there is no interconnection with the potable water system shall have a minimum protection type of an RP at the service connection.
4. Premises where there are wastewater pumping and/or treatment plants and there is no interconnection with the potable water system shall have a minimum protection type of AG. A RP may be provided in lieu of an AG if approved by MNWD.
5. Premises where there are irrigation systems into which fertilizers, herbicides, or pesticides are, or can be, injected, will be protected by a RP.

5.2.2 Auxiliary Water Supplies

Protection from auxiliary water supplies shall comply with the following:

1. Premises where there is an unapproved auxiliary water supply which is interconnected with the PWS will use an AG. An RP may be provided in lieu of an AG if approved by MNWD and the SWRCB.
2. Premises where there is an unapproved auxiliary water supply and there are no interconnections with the PWS will use an RP. A DC may be provided in lieu of an RP if approved by MNWD.

5.2.2.1 Commercial Fire Systems

Protection from commercial fire systems shall be no less than a DCDA and comply with the following:

1. A high hazard cross-connection fire system, including but not limited to fire systems that may utilize chemical addition (e.g., anti-freeze) or an auxiliary water supply, must have no less than RPDA protection.

2. Premises where the fire system is directly supplied from the PWS and there is an unapproved auxiliary water supply on or to the premises (not interconnected) will use an RPDA. A DCDA may be provided in lieu of an RP if approved MNWD.
3. Premises where the fire system is supplied from the PWS and where either elevated storage tanks or fire pumps which take suction from the private reservoirs or tanks are used will use a RPDA.
4. All fire service connections must receive at least the same level of protection on a premises.

5.2.2.2 Dockside Water Points and Marine Facilities

Premises on which marine facilities including pier hydrants are located will be protected by a minimum of an RP.

5.2.2.3 Single-Family Residence Fire Systems

Low hazard fire systems on single-family residential user premises will require a BPA unless the following five criteria are met:

1. The user premises has only one service connection to the PWS;
2. A single service line onto the user premises exists that subsequently splits on the property for domestic flow and fire protection system flow, such that the fire protection system may be isolated from the rest of the user premises;
3. A single, water industry standard, water meter is provided to measure combined domestic flow and fire protection system flow;
4. The fire protection system is constructed of piping materials certified as meeting NSF/ANSI Standard 61; and,
5. The fire protection system's piping is looped within the structure and is connected to one or more routinely used fixtures (such as a water closet) to prevent stagnant water.

5.2.3 Swivel-Ell Assemblies (CCCPH 3.2.2(d))

MNWD allows swivel-ells within its service area. All swivel ells must comply with all the requirements of the CCCPH and the requirements of this section.

5.2.3.1 Swivel-Ell General Requirements (CCCPH 3.2.2(d))

Except as otherwise allowed or prohibited in statute or in CCR Title 22, Division 4, Chapter 3, a swivel-ell assembly may be used instead of an AG for premises containment protection when substituting interrupted tertiary recycled water use areas with potable water from a public water system in accordance with the requirements of this section.

The design and construction of the swivel-ell assembly shall adhere to the criteria detailed in Section 5.2.3.1 of this CCCP. At least every 12 months, inspections shall be performed and documented confirming ongoing compliance with the design and construction-related requirements detailed in Section 5.2.3.2 of this CCCP.

The BPA used in conjunction with the swivel-ell assembly shall be tested and found to be functioning properly:

1. Immediately prior to each switchover to potable water use, and
2. At least every 12 weeks that the use site is being supplemented with potable water.

The SWRCB and HCA shall be notified within 24 hours of all switchovers to or from potable water, will be given an estimate of the timeframe until the next switchover, and will be provided the results of the testing required in this section. An MNWD representative and shall be present to supervise each switchover. If requested by the SWRCB, MNWD shall submit a written report describing compliance with this subsection, as well as potable and recycled water usage information within seven days of each switchover.

5.2.3.2 Design and Construction-Related Requirements (CCCPH Appendix C)

Prior to operation of a swivel-ell, MNWD shall receive approval for the design and construction plans of that swivel-ell from the SWRCB. The potable water supply must not, under any circumstances, be directly connected to the RW supply, nor be designed such that the RW use site could be supplied concurrently by a RW supply and a potable water supply. The potable water supply line and the RW supply line must be offset in a manner that ensures a tee-connection, spool, or other prefabricated mechanical appurtenance(s) could not be readily utilized in lieu of the swivel-ell connection, nor result in the RW use site being supplied concurrently by RW and potable water (as depicted in Appendix C of the CCCPH). The RW supply line used in conjunction with the swivel-ell assembly must be the only RW supply to the RW use site.

The swivel-ell assembly must be installed as close as practical to the PWS service connection, with the swivel-ell connection being located as close as practical to the BPA upstream of the swivel-ell. The swivel-ell assembly must:

1. Be located above ground;
2. Be color-coded pursuant to section 116815 of the CHSC and its implementing regulations;
3. Include appropriate signage, as required by regulation and the SWRCB;
4. Be provided the security necessary to prevent interconnections, vandalism, unauthorized entry, etc.; and
5. Be provided with meters on both the RW service and potable water service connections.

5.3 Hazard Assessments (CCCPH 3.2.1)

An evaluation of hazards on a user's premises will be performed or reviewed by a certified Cross-Connection Control Specialist to determine whether a high, low, or no hazard is present. The required BPA at a user premises will be determined by the degree of hazard through observed or understood water use. The observations and final determination of the required BPA will be included in a final report that will be maintained by MNWD for reference.

5.3.1 Access for Inspection

MNWD's Rules and Regulations provides for reasonable access to any water user's premises for purposes of conducting cross-connection control surveys, inspections of BPAs, and as otherwise necessary to protect the PWS against cross-connections. If access is refused, MNWD has the option to discontinue water service to the premises until entry is allowed.

5.3.1.1 New Construction

MNWD evaluates all new water supply requests through review of plans and specifications submitted to MNWD to assess backflow protection requirements.

If a BPA is required, MNWD requires it to be installed and tested prior to granting water service, as is described in Section 3.3.3(a) of the CCCPH.

5.3.1.2 Existing Customers

5.3.1.2.1 Initial Hazard Assessment (CCCPH 3.2.1)

As required by the CCCPH, MNWD will conduct initial hazard assessments at existing premises to evaluate the potential for backflow into the PWS. The hazard assessment will consider the following items:

1. The existence of cross-connections;
2. The type and use of materials handled and present, or likely to be, on the user premises;
3. The degree of piping system complexity and accessibility;
4. Access to auxiliary water supplies, pumping systems, or pressure systems;
5. Distribution system conditions that increase the likelihood or a backflow event;
6. User premises accessibility;
7. Any previous backflow incidents on the user premises; and,
8. The requirements and information provided in the CCCPH.

MNWD will perform the initial assessment using a combination of the following actions:

- Review of plans through building permit process
- Review of as-built or record drawings
- Year Built
- Cross reference of billing records with known backflow assemblies
- Field Inspections
- Google Maps and Aerial photos
- Reporting from BPA Testers
- Review of Housing Track Maps
- Customer Survey and Reported Uses Within the Premise

To ensure continued compliance with this program, MNWD will utilize a combination of NexGen, billing and other internal databases, and GIS to enhance hazard assessment accuracy and streamline data management. These tools will support efficient site evaluations, facilitate record-keeping, and improve reporting capabilities.

Timelines for conducting initial hazard assessments are provided in Table 5-1.

Table 5-1. Hazard Assessment Completion Goals and Timelines – Group One - 5 Years / Group Two - 10 Years (CCCPH 3.1.4(b)(2))

Customer Types	Tasks	Estimated Timeframes
Existing Commercial, Institutional, Industrial (CII), and Irrigation Services		
CIII/Irrigation Services with Known Backflow Protection Assemblies	• Determine Degree of Hazard for existing services with backflow preventors using SIC codes or other classification method. • Survey high hazard sites, if deemed necessary to confirm highest hazard. • Sites without adequate protection will be sent a letter to install appropriate backflow protection.	• Begin July 2025 • Estimated Completion July 2030
Commercial/Irrigation Services with No Known Backflow Protection Assemblies	• Audit billing system versus backflow database system to determine services without backflows. • Perform Hazard Assessments and Categorize groups for prioritization. • Provide Notices for Compliance.	• Begin July 2025 • Estimated Completion July 2035
Commercial Fire	• Reviewing billing records to determine sites without backflow protection. • Survey Sites without appropriate BPA. • Provide Notices for Compliance	• Begin July 2025 • Estimated Completion July 2035
Hydrant Meters	• Audit Current stock of temporary hydrant/construction meters. • Verify all meters have backflow protection attached or installed when used.	• Current Program is in Compliance
Residential Services		
Residential With Possible or Known Auxiliary Water Supplies	• Using county and SWRCB Records, MNWD will evaluate areas of the service area that may have auxiliary wells. • Perform site inspection of any possible homes with wells or other system supplies. • Require installation of appropriate backflow protection.	• Begin July 2025 • Estimated Completion July 2030
Multi-Family Residential	• Perform Hazard Assessments and categorize groups for prioritization • Provide Notices for Compliance	• Begin July 2025 • Estimated Completion 2035
Single Family Residential Services with Possible or Known Fire Systems	• Through county assessor information and District records, find homes built since January 2011 that may have sprinkler systems. • Use building permit data to review and identify sites with possible fire sprinkler systems. • Implement a requirement that existing homes with sprinkler systems applying for permits for upgrades and renovations, ADU additions, or similar will require backflow protection installation or meets requirements for waiver. • Assessment of progress to be evaluated in 2030 with more advanced approach performed through notification and educational letters sent to homes with fire sprinkler systems requiring backflow protection to begin installation process.	• Begin July 2025 • Education and Outreach proposed to start in 2026 • Estimated completion 2035
Single Family Residential Properties with Other Potential Hazards	• Perform desktop survey to determine homes with pools and sewer lift pumps. • Perform outreach at events and through sending educational flyers to encourage safe water handling. • Provide Notices for Compliance	• Begin July 2025 • Education and compliance efforts will be ongoing • Estimated Completion 2035
MNWD Owned Non-Testable Devices		
MNWD Owned Non-Testable Devices	• Cross-Connection control specialist will evaluate pump stations, lift stations, reservoirs, treatment plants, and remote facilities to confirm that water fixtures are installed according to the California Plumbing Code. This includes but is not limited to evaluation for vacuum breakers on hose bibs and urinals, air gaps in utility sinks, etc.	• Begin July 2025 • Estimated Completion July 2030

5.3.1.3 Follow-Up Hazard Assessments (CCCPH 3.2.1(e))

The program administrator or a Cross-Connection Control Specialist will conduct or review hazard assessments when:

1. A user premises changes ownership, excluding single-family residences;
2. A user premises is newly connected to the PWS;
3. Evidence exists of potential changes in the activities or materials on a user's premises;
4. A backflow event from a user's premises occurs;
5. Periodically according to MNWD's Program;
6. The SWRCB requests a hazard assessment of a user's premises; and
7. MNWD concludes an existing hazard assessment may no longer be correct.

MNWD will notify water users requesting an inspection appointment. Any water user who cannot or will not allow an on-premises inspection of piping system will be required to install a RP or AG in accordance with the CCCPH.

5.3.1.4 Hazard Assessment Outcomes

Outcomes following the completion of hazard assessments are described below.

5.3.1.4.1 Meets Requirements

If the presently installed BPA is found to meet the requirements of the CCCPH and is found to be in good working order, then it will remain in place and be considered adequate protection.

5.3.1.4.2 Non-Complying Assembly

All presently installed BPAs which do not meet the requirements set forth in the CCCPH and this CCCP will be required to be upgraded to the appropriate BPA as determined by MNWD. MNWD will provide written notice to the customer to install, at their cost and expenses, an approved BPA within 30 calendar days. If corrective actions are not taken, MNWD will send a second notice, and, if necessary, a final notice that will each give the customer an additional two-week period to take required corrective actions. If no action is taken by the final notice due date, MNWD may terminate water service to the affected customer until the required corrective actions are taken.

5.3.1.4.3 New Assembly Required

If MNWD determined that an existing premises requires backflow protection in a time-sensitive manner, MNWD will provide written notice to the customer to install, at their cost and expenses, an approved BPA within 30 calendar days. If corrective actions are not taken, MNWD will send a second notice, and, if necessary, a final notice that will each give the customer an additional two-week period to take required corrective actions. If no action is taken by the final notice due date, MNWD may terminate water service to the affected customer until the required corrective actions are taken.

5.4 Discontinuation of Water Service (Article IV Exhibit G – 106)

Conditions for discontinuation of water services may include the following items:

- Refusal to install a required BPA
- Refusal to test a BPA
- Refusal to repair a faulty BPA
- Refusal to replace a faulty BPA
- Direct or indirect connection between the PWS and a sewer line
- Unprotected direct or indirect connection between the PWS and a system or equipment containing contaminants
- Unprotected direct or indirect connection between the PWS and an auxiliary water systems
- A situation which presents an immediate health hazard to the PWS

MNWD will make reasonable effort to advise water users, through direct contact or written notices, of the necessary corrective actions. If no action is taken within a reasonable time period, water service may be terminated. The water service will remain inactive until correction of violations has been approved by the MNWD.

6.0 BACKFLOW PREVENTION ASSEMBLIES

6.1 Approved Backflow Prevention Assemblies (CCCPH 3.3.1)

Only BPAs approved and deemed acceptable by MNWD shall be allowed for installation by a water user to protect the PWS. Approved BPAs which may be subjected to back-pressure or back-siphonage must have been fully tested and granted a Certificate of Approval by a certified laboratory. MNWD will provide, upon request, to any water user required to install a backflow preventer a list of approved BPAs.

Approved BPAs must have passed both laboratory and field evaluation tests in accordance with standards found in any of the following the latest edition of the Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California Manual of Cross-Connection Control.

BPAs must not be modified from the approved configuration. The type of device required shall depend on the degree of hazard. Different types of approved BPAs are specified for various scenarios to protect the potable water supply. BPA testers are required to notify MNWD if a water user or MNWD-owned backflow preventer has been modified.

6.1.1 Installation Requirements (CCCPH 3.3.2)

BPAs shall be installed by the customer and at their expense when found necessary or prior to installation of a new service per MNWD standards and specifications. The BPAs shall be installed in a manner prescribed in the CCCPH and as close as practical to the user's service connection on the user premises. The final authority in determining the required location shall be MNWD. If internal protection is proposed for the purpose of containment, MNWD must be able to access the user's premises and ensure that the on-site protections meet the requirements of the CCCPH. All BPAs shall be readily accessible for field testing and maintenance.

In References C and D of this document, please see MNWD's backflow drawings.

6.1.1.1 Air Gap

An AG is to be installed on the user's premises at the water user's service connection and in accordance with CCCPH requirements. The receiving water container must be located on the water user's premises at the water user's service connection. Alternate locations must be approved by MNWD. All piping between the water users service connection and the discharge location of the receiving water container must be above grade and accessible for visual inspection. No water use shall be provided from any point between the service connection and the AG. If installed at the user service connection after the adoption of the CCCPH, the AG must be approved by the SWRCB prior to installation. The water inlet piping shall terminate a distance of twice the diameter of the effective opening, but in no case less than 1 inch above the overflow rim of the receiving tank.

6.1.1.2 Reduced Pressure Principle Backflow Prevention Assembly

The approved RP shall be installed on the user's side of and as close to the service connection as is practical. The RP shall be installed such that the lowest point of the assembly is a minimum of 12 inches above the finished grade and not more than 36 inches above grade measured from the bottom of the assembly and with a minimum of 12 inches side clearance, unless an alternative is approved by MNWD. However, a minimum side clearance of 24 inches must be provided on the side of the assembly that contains the test cocks. The assembly should be installed so that it is readily accessible for maintenance and testing.

The same space requirements may be applied to RPDAs.

6.1.1.3 Double Check Valve Backflow Prevention Assembly

DCs installed or replaced after the adoption of the CCCPH must be installed on the user's side of and as close to the service connection as is practical. The DC shall be installed such that the lowest point of the assembly is a minimum of 12 inches above the finished grade and not more than 36 inches above grade measured from the bottom of the assembly and with a minimum of 12 inches side clearance, unless an alternative is approved by MNWD. However, a minimum side clearance of 24 inches must be provided on the side of the assembly that contains the test cocks. The assembly should be installed so that it is readily accessible for maintenance and testing.

The same space requirements may be applied to DCDAs.

6.1.1.4 Pressure Vacuum Breaker Backflow Prevention Assembly

A PVB must be installed a minimum of 12 inches above all downstream piping and outlets. A PVB may only be used for containment when no potential for backpressure is present, such as roadway right of way irrigation systems.

The same requirements may be applied to SVBs.

6.1.1.5 Swivel-Ell Assemblies

Swivel-ells should be installed according to Appendix C of the CCCPH.

7.0 NOTIFICATION AND TESTING OF BACKFLOW PREVENTION ASSEMBLIES

7.1 BPA Testing and Notification Procedures (CCCPH 3.3.3 & Article IV Exhibit G – 105)

This section outlines MNWD's overall BPA testing and notification procedures.

7.1.1 Testing

7.1.1.1 Frequency

MNWD requires all BPAs with active water services be field tested upon installation, repair, or when relocated. MNWD requires BPAs to be field tested once per year. More frequent testing may be deemed necessary based on site condition, hazards present, or as determined by MNWD. Prior to initiating or resuming water service, MNWD must receive from a BPA Tester a backflow test report form indicating a passing test.

MNWD may periodically conduct random BPA testing using MNWD personnel certified as BPA Testers. These random tests will be done at no cost to the water user. This random testing does not relieve the water user from the responsibility of annual testing, nor from maintaining functional BPAs.

7.1.1.2 Procedures

BPA Testers shall follow the testing procedures according to the latest edition of the University of Southern California's Manual of Cross-Connection Control. All costs associated with testing, repairing, replacing, or overhauling a BPA shall be borne by the water user. Testing results shall be submitted to MNWD on an approved testing form in electronic format or signed paper form. MNWD manually input test results into the NexGen software.

Appendix B includes the BPA Field Testing and Maintenance Report.

7.1.1.3 New Installations

MNWD must receive a passing field test for all newly installed BPAs providing containment protection before water service can be provided. In addition, visual inspections of all newly installed assemblies will be made to assess proper installation and to validate the information from the initial testing of the assembly.

7.1.1.4 Failed Field Test

BPAs that fail the field test should be repaired or replaced and retested within 30 days. Failed assemblies may be removed for repair or replacement 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 MNWD. A retest will be required following the repair or replacement of the assembly.

7.1.2 Notifications

7.1.2.1 Notification Process

It is the responsibility of MNWD to verify that BPAs receive a passing field test at least once a year.

MNWD will notify each affected water user when it is time for a BPA to be tested. This written notice shall give the water user 30 days to have the device tested and results submitted to MNWD on an approved BPA testing form. A second notice shall be sent to each water user that does not have their BPA tested within the initial 30-day period. The second notice will give the water user a three-week period to have its BPA tested. If no action is taken within the first and second notice period allowed a penalty fee may apply for each BPA not in compliance with the testing requirement. A final notice will be sent. The final notice will give the water user two weeks to comply. After this period, MNWD may terminate water service to the affected water user until the subject BPA is tested and passing test results submitted to MNWD.

Notifications include information regarding cross-connection control state regulations, MNWD'S ordinance and contact information, instructions for accessing the list of backflow tester companies, processes for submitting a backflow test report, and the due date for testing.

7.1.2.2 Notification of Imminent Hazard

BPA testers are required to notify MNWD within 24 hours if a backflow incident or an unprotected cross-connection is observed at a user premise during field testing. MNWD will immediately investigate the incident as described in Section 9 of this CCCP.

8.0 RECORD MAINTENANCE

MNWD will retain the following records, described in the sections below, in electronic form and make them available to the SWRCB upon request. To ensure compliance with the plan, MNWD will leverage a combination of NEXGEN, billing and other internal databases, and GIS for efficient record management and accessibility.

8.1 Cross-Connection Control Plan

This CCCP will be retained and reviewed every five years to evaluate for necessary updates.

8.2 Hazard Assessments

At least the two most recent hazard assessments conducted according to Section 5.3 of this CCCP.

8.3 Assembly Records

For each BPA type, the associated hazard, location, owner, manufacturer and model, size, installation date, serial number, account number, consumer of record, and repair history shall be kept electronically.

MNWD uses Nexgen software to track and manage all BPA information.

For each AG installation, the associated hazard, the location, owner, and as-built plans of the AG shall be kept electronically.

8.4 Testing Results

Test results on all BPAs and AGs will be kept electronically for 3 calendar years and will include the name, test date, repair date, and certification number of the BPA tester.

8.5 Repairs

All repairs made to BPAs for the previous 3 calendar years.

8.6 User Supervisors

Current contact information for the user supervisor and water user, and any applicable training and qualifications as described by Section 10.1.2 of this program.

8.7 Incident Reports

Descriptions and follow-up actions related to all backflow incidents for the most recent 10 years will be retained.

8.8 Cross-Connection Control Shutdown Tests

The most recent shutdown tests or dye tests will be retained.

8.9 Contracts or Agreements

All contracts or agreements that pertain to the cross-connection control program will be retained.

8.10 Public Outreach and Educational Materials

Elements required per the CCCPH will be saved for the previous three calendar years.

9.0 INCIDENT RESPONSE AND NOTIFICATION

MNWD will investigate potential backflow incidents when any of the following events are reported:

- Water quality complaints that cannot be explained as a "normal" aesthetic problem
- Backflow incident has been suspected or has known to have occurred
- Unknown increase of system pressure reported
- Unknown decrease of system pressure reported

Additionally, MNWD will initiate notification and water quality sampling procedures when a water main break or power outage causes a negative loss of water pressure within a significant area of the distribution system.

9.1 Incident Response Procedure (CCCPH 3.5.2)

MNWD uses Advanced Metering Infrastructure (AMI) as part of its smart meter program. The AMI system allows for hourly water usage tracking, leak detection, real-time access to water consumption data, and provides alerts for reverse consumption. MNWD reviews daily reports of potential reverse flows from meters.

In the event of a potential backflow or cross-connection related incident, MNWD will take the following steps.

9.1.1 Incident Investigation

The MNWD Operations Team will begin the investigation of a potential incident by dispatching a Customer Service Field Technician from the Customer Service Division to the location of the reported incident. Through a field investigation, the Field Technician will determine if contamination is present in the PWS and the extent of the impacted area. The Field Technician with coordination and oversight from the Cross-Connection Control Specialist will perform the following tasks to investigate for the potential cross-connections:

- Survey the location and surrounding area for possible main breaks
- Investigate the location to observe for potential source(s) of contamination
- Observe the domestic meter(s) for negative consumption
- Survey hydrants, blow offs, and air inlet valves for possible sources of contamination

If a backflow incident is discovered, water service to that location will be discontinued until a corrective action is taken.

During business hours, MNWD has a Cross-Connection Control Specialist available to respond within an hour as needed. During non-business hours, the customer service team will act as the designee to respond within an hour and communicate information to the Cross-Connection Control Specialist when the next shift begins. Standby staff from the Engineering and Operations Departments will be trained to identify signs of contamination related to potential backflow incidences, ensuring a proactive approach to maintaining water quality and safety.

9.1.2 Source of Contamination Isolation

MNWD will isolate the portion of the system suspected of being contaminated by closing isolation valves or the water service and will notify impacted customers.

9.1.3 Notification and Coordination with Outside Agencies

MNWD will be responsible for notifying, within 24 hours, the SWRCB and the HCA of a potential incident.

9.1.4 Sampling Plan

A sampling plan will be implemented to confirm that the potable system meets Safe Drinking Water Standards. The Sampling Plan will be submitted to the SWRCB and HCA and will describe the steps required to identify the contaminants, assess the extent of the contamination, and define the necessary remediation efforts.

9.1.5 Notification of Affected Customers

When required, MNWD will issue a Tier 1 public notification pursuant to CCR, Title 22, Section 64463.1. If the contamination is of biological nature, MNWD will issue a Boil Water Order Notice. If the contamination is of chemical nature, MNWD will issue Unsafe Water Alerts as “Do-Not-Use” or “Do-not-Drink” Notices. Notices include instructions on what consumers should do, where potable water is available, and if applicable, dates of notice issuance and expected resolution and location where additional information can be obtained.

9.1.6 Incident Reporting (CCCPH 3.5.3)

If required by the SWRCB, MNWD will submit to the SWRCB a written incident report describing the nature and severity of the backflow, the actions taken by MNWD in response to the incident, and any follow up actions required to prevent future incidents. The written report will contain, at a minimum, the information provided in Appendix F of the CCCPH.

10.0 PUBLIC OUTREACH, EDUCATION, AND COORDINATION

10.1 Public Outreach and Education

MNWD uses public outreach as an opportunity to educate the general public, staff, and BPA owners on MNWD's Program and the importance of testing and maintaining BPAs. This initiative not only promotes awareness but actively fosters education by providing resources and guidance to ensure compliance. Through clearly defined mechanisms for self-reporting and seeking assistance, MNWD empowers customers to take proactive steps in maintaining regulatory standards, reinforcing backflow prevention efforts to protect the community. Public outreach may include:

- Flyers or pamphlets
- New construction packets for developers
- Water bill inserts
- Consumer confidence report
- Emails
- Website

10.1.1 Training

MNWD encourages its staff to obtain and maintain water related certifications such as BPA tester and Cross-Connection Control Specialist certifications.

10.1.2 User Supervisors (CCCPH 3.2.2)

MNWD may require, when necessary and at its discretion, a water user to designate a user supervisor. The water user shall inform MNWD of the user supervisor's identity on, at a minimum, an annual basis and whenever a change occurs.

The user supervisor will be responsible for monitoring BPAs and avoiding cross-connections. In the event of contamination or pollution of the PWS due to a cross-connection on the premises, MNWD shall be promptly notified by the user supervisor.

The user supervisor will be required to attend, at the owner's expense, a yearly training provided by MNWD that covers the Program, types of hazards, and concerns typically found on the user's premises.

At the time of this CCCP, there are no potable user supervisor sites but MNWD has recycled water site supervisors that are trained on cross-connection control and MNWD has regular trainings and communication with those sites in accordance with Title 22.

10.1.3 Inter-Agency Coordination

MNWD coordinates, when required, with HCA for environmental and public health concerns.

MNWD also reviews drawings and performs inspections for permits on new construction projects seeking water services or remodeling projects for existing water users. MNWD plays a crucial role in the building permit process with the cities they serve. Building officials will not issue a building permit without an MNWD will-serve letter.

MNWD reviews drawings, permits, and performs inspections on new projects requiring water services and remodeling projects involving existing water users. When necessary, MNWD coordinates other entities as shown in Table 10-1.

Table 10-1. Agency Contact Information

Name of Agency	Contact Information
Orange County Health Care Agency	Contact Name: Hasham Elmishad Position: Supervising Environmental Health Specialist Phone: 714-433-6280
Orange County Fire Authority	Contact Name: Robert Distaso Position: Fire Safety Engineer Phone: 714-573-6253
South Coast Water District	Contact Name: Jason Shim Address: 31592 West St., Laguna Beach, CA, 92651 Phone: 949-339-0027 Email: JShim@scwd.org
El Toro Water District	Contact Name: Steve Wingen Address: 24251 Los Alisos Blvd., Lake Forest, CA, 92630 Phone: 949-837-7050 (ext. 247) Email: hford@etwd.com
Santa Margarita Water District	Contact Name: Ryan Pape Address: 26111 Antonio Parkway, Rancho Santa Margarita, CA, 92688 Phone: 949-328-0544 Email: ryanp@smwd.com
City of Aliso Viejo	Contact Name: Candy Nick, Position: Permit Technician Phone: 949.425.2540
City of Dana Point	Contact Name: Judy Figueroa Position: Permit Technician Phone: 949-248-3564
City of Laguna Hills	Contact Name: Cathy Truper Position: Permit Technician Phone: 949-707-2600
City of Laguna Niguel	Contact Name: Wendy Martinez Position: Permit Technician Phone: 949-362-4360
City of Mission Viejo	Contact Name: Zachary Knau Position: Permit Technician Phone: 949-470-3054

Reference A

Cross-Connection Control Policy Handbook (Amended June 17, 2025)

Link:

Cross-Connection Control Policy Handbook (CCCPH) | State Water Resources Control Board

Reference B

Article IV Rules and Regulations and Proposed Rules and Regulations Update

Link:

ARTICLE IV Rules and Regulations Overhaul

Reference C

Standard Specifications for Construction of Potable Water, Recycled Water, and Wastewater Facilities and Pertinent Standard Details

Link:

https://www.mnwd.com/standard-specifications

Appendix A

HCA Backflow Tester Registration Application and Code of Conduct

Environmental Health Backflow Tester Registration Application

1241 E. Dyer Rd. Santa Ana, CA. 92705

www.ochealthinfo.com/services-programs/environment-food-safety/water

TESTER INFORMATION		
Tester Name:		Personal Phone:
Tester Street Address:	City:	Zip Code:
Email Address:		Date of Birth:

EMPLOYER INFORMATION (if applicable)		
Employer Name:		Phone:
Employer Address:	City:	Zip Code:
Employer Email:		Employer: Choose One

Select One: ☐ Initial ☐ Renewal

Registered backflow testers may opt for inclusion in a published listing exclusively on HCA's website. The listing is organized by tester seniority to assist businesses in locating OC HCA registered backflow testers.

ANSI ACCREDITED CERTIFYING ORGANIZATION	TESTER LIST INFORMATION (fee applies)
Organization Name: Choose One	Your Name:
Certification Number:	Company/Employer Name:
Expiration Date:	Phone:

Please be aware that it is the registered applicant's responsibility to ensure the ongoing validity of all required licensures and certificates. Failure to keep these up-to-date could result in the nullification of the OC Health Care Agency backflow assembly tester registration.

I have received a copy of the Code of Conduct for Backflow Prevention Device Testers adopted by OC Health Care Agency and the Orange County Cross Connection Control Group. I understand that failure to comply with this code can result in the loss of testing privileges in Orange County and/or within a member agency's jurisdiction. Also, knowingly filing a false test report may be a misdemeanor violation. I am aware that information on my application is public record based on the California Public Records Act and State Government Code Section 6250 and is subjected to inspection or copying upon request.

Print Name of Applicant: _____ Title: _____ Date: _____

Signature of Applicant: _____

Upload Your ANSI Accredited Certificate

Current Test Kit Calibration Report

Upload Your Current Photo

The Code of Conduct for HCA Backflow Prevention Assembly Testers

The OC Health Care Agency (HCA) requires that the following Code of Conduct is followed by all backflow prevention assembly testers registered to conduct tests in Orange County:

1. Testers must possess a current tester registration number issued by HCA- Environmental Health to perform tests on backflow prevention assemblies within Orange County.
2. Testers are strictly prohibited from knowingly falsifying field results of backflow prevention assemblies. Examples of such misconduct include:
    - Signing off on backflow test reports for tests they did not conduct.
    - Undertaking unnecessary repairs.
    - Lacking proper backflow registration required for testing in Orange County.
    - Failing to adhere to the established test procedures outlined by Orange County Environmental Health.
    - Using unauthorized equipment for backflow testing.
3. Testers must not remove, replace, or relocate a backflow assembly without obtaining explicit approval from the respective water purveyor or HCA.
4. Within 10 working days of the initial test, irrespective of the test outcome, all backflow assembly test reports must be promptly submitted to both the water purveyor and HCA. In case of any specific issues related to the test or the test report form, the tester is required to contact either the water agency or HCA.
5. All backflow reports must be submitted using the designated forms. These reports should be clear, legible, and contain all relevant information pertaining to the conducted test(s).
6. Testers must adhere strictly to their registration period and must not conduct any test beyond the expiration date of their registration. Performing tests outside the valid registration period is strictly prohibited.
7. Testers bear the responsibility of promptly informing HCA about any changes in their contact information, including address, emails or phone numbers. To report changes, please contact (714) 433-6000 or email OCBackFlowTests@ochca.com.

Any tester failing to comply with the provisions of this Code of Conduct is subject to disciplinary action. The results of the action can be the loss of testing privileges in Orange County or in a water purveyor's jurisdiction. Also, it can be a misdemeanor violation to knowingly file a false test report.

This comprehensive Code of Conduct aims to uphold professional standards and compliance among backflow prevention assembly testers operating within Orange County and was created in conjunction with the Orange County Cross Connection Control Group.

Tester Name: _____ Date: _____

Tester Signature: _____

Click to E-Mail Form Reset Form

Appendix B

Backflow Prevention Assembly Field Testing and Maintenance Report

MANUFACTURER | MODEL NO. | SIZE | SERIAL NUMBER | SERVICE NUMBER

LOCATION:

METER NUMBER:

- IMPORTANT -
Please Return This Form
NO OTHER FORM WILL BE ACCEPTED

Moulton Niguel Water District

MAIL TO: 26161 Gordon Rd.
Laguna Hills, CA 92653-8224
(949) 607-9461
backflow@mnwd.com

BACKFLOW PREVENTION DEVICE FIELD TESTING AND MAINTENANCE REPORT

DUE DATE:

PASS / **FAIL**

REDUCED PRESSURE PRINCIPLE ASSEMBLY

DOUBLE CHECK VALVE ASSEMBLY

Line Pressure _____

	CHECK VALVE # 1	CHECK VALVE # 2	RELIEF VALVE	PVB/SVB
INITIAL TEST	Held at _____PSID CLOSED TIGHT ☐ FAILED ☐ LEAKED ☐	Held at _____PSID CLOSED TIGHT ☐ FAILED ☐ LEAKED ☐	Opened at _____PSID DID NOT OPEN ☐	AIR INLET Opened at _____ PSID DID NOT OPEN ☐ **AIR INLET FULLY OPEN** YES ☐ NO ☐ **CHECK VALVE** HELD AT _____PSID CLOSED TIGHT ☐ FAILED ☐ LEAKED ☐
REPAIRS	☐ CLEANED _____ _____ _____ ☐ REPLACED _____ _____ _____ _____	☐ CLEANED _____ _____ _____ ☐ REPLACED _____ _____ _____ _____	☐ CLEANED _____ _____ _____ ☐ REPLACED _____ _____ _____ _____	☐ CLEANED _____ _____ ☐ REPLACED _____ _____
FINAL TEST	Held at _____PSID CLOSED TIGHT ☐	Held at _____PSID CLOSED TIGHT ☐	Opened at _____PSID	**Air Inlet** OPENED AT _____PSID FULLY OPEN YES ☐ **CHECK VALVE** HELD AT _____ PSID

Comments _____

_____

_____ _____ _____ _____

INITIAL TEST (SIGNATURE) | PRINT NAME | CERT. TESTER NO. | DATE

_____ _____ _____ _____

FINAL TEST (SIGNATURE) | PRINT NAME | CERT. TESTER NO. | DATE

TESTERS COMPANY NAME | TESTERS PHONE NUMBER (REQUIRED)

Moulton Niguel Water District
26161 Gordon Rd.
Laguna Hills, CA 92653-8224
(949) 607-9461
backflow@mnwd.com

-IMPORTANT-
Please Return This Form
NO OTHER FORM WILL BE ACCEPTED

NOTICE TO TEST BACKFLOW PREVENTION DEVICE

This backflow prevention device described on the reverse of this notice has been installed on premises owned or controlled by you for the protection of the domestic water supply

Under requirements of the California Administrative Code and the Orange County Public Health code, you are directed to have this device tested to determine that it is functioning satisfactorily. If found defective, the device shall be serviced or replaced without delay.

Failure to comply with these requirements will result in the termination of water service to the affected water user until the device is tested. A reconnection fee will be charged to restore the water service.

Testing must be performed by a person possessing a valid Certificate of Competence issued by the County of Orange Health office. A list of Certified Testers is available, at www.MNWD.com

The completed report is to be returned to the address indicated and by the date specified on the reverse of this notice. Reports can also be emailed to backflow@mnwd.com


WEST YOST
Water. Engineered.