ATTACHMENT B

Cross Connection Management Plan 2025

Approved by:

Mark Vukojevic, Utilities Director

This Cross Connection Control Management Plan has been prepared in compliance with the California State Water Board CCCPH.

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1 Cross Connection Control Policy Overview

1.1 Objective

The primary objective of the Cross-Connection Control Management Plan (CCCMP) is to bring the City into compliance with the Cross Connection Control Policy Handbook (CCCPH) developed by the State Water Resources Control Board (State Water Board) for the protection of public health through the establishment of standards intended to ensure a public water system's (PWS) drinking water distribution system will not be subject to the backflow of liquids, gases, or other substances, see CCCMP **Appendix A**. In addition, by providing basic educational information on backflow prevention, the City intends to build a foundation of awareness within the City regarding the importance of backflow protection and cross-connection control, leading to the implementation of a robust cross-connection control program.

Per Section 3.1.4 (b)(1) description the City will implement the requirements of the State CCCPH by implementing ordinances and procedures as detailed in this CCCMP.

1.2 Applicability

The State CCCPH and its standards apply to all California PWSs, as defined in California's Health and Safety Code (CHSC, section 116275 (h)). Compliance with the State CCCPH is mandatory for all California PWSs. The City's CCCMP has been developed in conformance to the State CCCPH and is applicable to all customers within the City's service area.

1.3 Policy Development Background and Legal Authorities

Through the adoption of the State CCCPH, the State Water Board exercised its authority, under California's Safe Drinking Water Act (SDWA), to establish enforceable standards applicable to California's PWSs. Failure to comply with the CCCMP which is in conformance with the State CCCPH may result in the issuance of compliance, enforcement, or other corrective actions against the City.

1.4 California Safe Drinking Water Act

On October 6, 2017, Assembly Bill 1671 (AB 1671) was approved and filed with the Secretary of State (see CCCMP **Appendix B**). AB 1671 amended California's SDWA through the establishment of CHSC sections 116407 and 116555.5. AB 1671 also amended section 116810 of the CHSC, which is briefly discussed in CCCPH.

On October 2, 2019, Assembly Bill 1180 (AB 1180) was approved and filed with the Secretary

of State. AB 1180 amended Section 116407 of the CHSC and added section 13521.2 to the Water Code. AB 1180 requires that the CCCPH include provisions for the use of a swivel or changeover device (swivel-ell), see CCCMP **Appendix B.**

Pursuant to sections 116407 and 116555.5 of the CHSC, the State Water Board chose to adopt standards for backflow protection and cross-connection control through the adoption of this State CCCPH, which became effective July 1, 2024.

- The State Water Board is required to adopt regulations for the control of cross-connections that it determines to be necessary for ensuring PWSs "distribute a reliable and adequate supply of pure, wholesome, potable, and healthy water." (CHSC section 116375, subd. (c).)
- Any person who owns a PWS is required to ensure that the distribution system will not be subject to backflow under normal operating conditions. (CHSC section 116555, subd. (a)(2).)

Prior to AB 1671 and the adoption of the State CCCPH, California's regulations pertaining to cross-connection control were set forth in regulations in CCR Title 17, which were adopted in 1987 with minor revisions in 2000. Although still protective to public health, the CCR Title 17 cross-connection regulations required updating as both the drinking water and cross-connection control industries had evolved. This State CCCPH updates those regulations, which as previously noted are no longer operative following the adoption of the State CCCPH.

The State Water Board may update its standards for backflow protection and cross- connection control through revisions of the State CCCPH. Prior to adopting substantive revisions to the State CCCPH, the State Water Board will consult with state and local agencies and persons identified as having expertise on the subject by the State Water Board, and the State Water Board will hold at least one public hearing to consider public comments.

1.5 Acronyms and Abbreviations

As used in this policy, acronyms and abbreviations reference the following:

Acronym or Abbreviation	Meaning
AB	Assembly Bill
AG	Air Gap separation
BAT	Best Available Technology
BPA	Backflow Prevention Assembly
Bus. & Prof. Code	Business and Professional Code
CA	California
CBSC	California Building Standards Commission
CCCMP	Cross Connection Control Management Plan
CCCPH	Cross-Connection Control Policy Handbook
CCR	California Code of Regulations
C.F.R.	Code of Federal Regulations
CHSC	California Health and Safety Code
City	City of Newport Beach
Civ. Code	Civil Code
DC	Double Check valve backflow prevention assembly
DCDA	Double Check Detector backflow prevention Assembly
DCDA-II	Double Check Detector backflow prevention Assembly – type II
Division	Division of Drinking Water
EPA	Environmental Protection Agency
Gov. Code	Government Code
MCL	Maximum Contaminant Level
Muni Code	Municipal Code
Pen. Code	Penal Code
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
RPDA-II	Reduced Pressure principle Detector backflow prevention Assembly – type II
RW	Recycled Water
SB	Senate Bill
SDWA	Safe Drinking Water Act
State Water Board	State Water Resources Control Board
SVB	Spill-resistant Pressure Vacuum Breaker backsiphonage prevention assembly
U.S.	United States

1.6 Definitions and General Requirements

The following definitions apply to the terms used in the CCCPH:

"**Air-gap separation**" or "**AG**" means a physical vertical separation of at least two (2) times the effective pipe diameter 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 one (1) inch.

"**Approved water supply**" means a water source that has been approved by the State Water Board for domestic use in a public water system and designated as such in a domestic water supply permit issued pursuant to section 116525 of the CHSC.

"**Auxiliary water supply**" means a source of water, other than an approved water supply, which 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**" means an undesired or unintended reversal of flow of water and/or other liquids, gases, or other substances into a public water system's distribution system or approved water supply.

"**Backflow prevention assembly**" or "BPA" means a mechanical assembly designed and constructed to prevent backflow, such that while in-line it can be maintained and its ability to prevent backflow, as designed, can be field tested, inspected, and evaluated.

"**Backflow prevention assembly tester**" means a person who is certified as a backflow prevention assembly tester.

*"***Community water system"** means a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system.

*"***Contact hour"** means not less than 50 minutes of a continuing education course.

*"***Continuing education course"** means a presentation or training that transmits information related to cross-connection control programs and backflow prevention and protection.

"**Cross-connection**" means any actual or potential connection or structural arrangement between a public water system, including a piping system connected to the public water system 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.

"**Cross-connection control specialist**" means a person who is certified as a cross-connection control specialist.

“**Distribution system**” has the same meaning as defined in section 63750.50 of CCR, Title 22, Division 4, Chapter 2.

“**Double check detector backflow prevention assembly**” or “**DCDA**” means 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 two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections. See Diagram 1, CCCMP **Appendix G**.

“**Double check detector backflow prevention assembly – type II**” or “**DCDA-II**” means 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 two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections. See Diagram 2, CCCMP **Appendix G**.

“**Double check valve backflow prevention assembly**” or “**DC**” means 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 to isolate low hazard cross-connections. See Diagram 3, CCCMP **Appendix G**.

“**Existing public water system**” or “**existing PWS**” means a public water system initially permitted on or before July 1, 2024 as a public water system by the State Water Board.

“Hazard Assessment” means an evaluation of a user premises designed to evaluate the types and degrees of hazard at a user’s premises.

“**High hazard cross-connection**” means 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 CCCMP **Appendix D** for some examples.

“**Low hazard cross-connection**” means 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.

“**New public water system**” or “**new PWS**” means a public water system permitted after July 1, 2024 as a public water system by the State Water Board. A new public water system includes a public water system receiving a new permit because of a change in ownership.

“**Premises containment**” means protection of a public water system’s distribution system from backflow from a user’s premises through the installation of one 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 public water system’s distribution system.

“**Pressure vacuum breaker backsiphonage prevention assembly**” or “**PVB**” means 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 backsiphonage and is not to be used to protect from backpressure. See Diagram 4, CCCMP **Appendix G.**

“**Public water system**” or “**PWS**” has the same meaning as defined in section 116275(h) of the CHSC.

“**Recycled Water"** is a wastewater which as a result of treatment is suitable for uses other than potable use.

“**Reduced pressure principle backflow prevention assembly**” or “**RP**” means 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. See Diagram 5, CCCMP **Appendix G.**

“**Reduced pressure principle detector backflow prevention assembly**” or “**RPDA**” means 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 two gallons per minute and visually showing a registration for all rates of flow. See Diagram 6, CCCMP **Appendix G.**

“**Reduced pressure principle detector backflow prevention assembly – type II**” or “**RPDA-II**” means 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 two gallons per minute and visually showing a registration for all rates of flow. See Diagram 7, CCCMP **Appendix G.**

"**Spill-resistant pressure vacuum breaker backsiphonage prevention assembly**" or "**SVB**" means 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 backsiphonage and is not to be used to protect from backpressure. See Diagram 8, CCCMP **Appendix G.**

"**State Water Board**," unless otherwise specified, means the 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**" means a reduced pressure principle backflow prevention assembly combined with a changeover piping configuration (swivel-ell connection) designed and constructed pursuant to this Chapter. See design and construction criteria, as well as Diagrams 9a and 9b, CCCMP **Appendix G.**

"**User premises**" means the property under the ownership or control of a water user and is served, or is readily capable of being served, with water via a service connection with a public water system.

"**User's service connection**" means either the point where a water user's piping is connected to a water system or the point in a water system where the approved water supply can be protected from backflow using an air gap or backflow prevention assembly.

"**User Supervisor"** means a person designated by a water user to oversee a water use site and responsible for the avoidance of cross-connections.

"**Water supplier**" means a person who owns or operates a public water system.

"**Water user**" means a person or entity who is authorized by the PWS to receive water.

2 Hazard Assessments and Required Protection

In accordance with the State CCCPH, Section 3.1.3 (a)(3) – Hazard Assessments, Section 3.1.4 (b)(2), and Section 3.2.1 – The City must survey its service area and conduct hazard assessments per Article 2 of the State CCCPH that identifies actual or potential cross-connection hazards, degree of hazard, and any backflow protection needed.

2.1 Hazard Assessments

a. To evaluate the potential for backflow into the City's water distribution system the City must conduct an initial hazard assessment of the user premises within its service area. The hazard assessment must consider:

    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 of a backflow event (e.g., hydraulic gradient differences impacted by main breaks and high water-demand situations, multiple service connections that may result in flow-through conditions, etc.);
    6. user premises accessibility;
    7. any previous backflow incidents on the user premises; and
    8. the requirements and information provided in the State CCCPH, and the City's CCCMP.

b. Each hazard assessment must identify the degree of hazard to the City's distribution system as either a high hazard cross-connection, a low hazard cross- connection, or having no hazard. Examples of some high hazard cross-connection activities may be found in CCCMP **Appendix D**.

c. The hazard assessment must determine whether an existing BPA, if any, provides adequate protection based on the degree of hazard.

d. Hazard assessments completed prior to the adoption of the State CCCPH may be considered as an initial hazard assessment provided that such hazard assessments and associated backflow protection provide protection consistent with the State CCCPH and the City describes their review of these assessments in the City's CCCMP.

e. Subsequent to the initial hazard assessment described in subsection (a), the City must perform a hazard assessment under the following criteria:

    1. if a user premises changes account holder, excluding single-family residences;
    2. if a user premises is connected to the City's water distribution system;

3. if evidence exists of changes in the activities or materials on a user's premises;
4. if backflow from a user's premises occurs;
5. periodically, as identified in the City's CCCMP required pursuant to State CCCPH section 3.1.4.;
6. if the State Water Board requests a hazard assessment of a user's premises; or
7. if the City concludes an existing hazard assessment may no longer accurately represent the degree of hazard.

f. A cross-connection control specialist must review or conduct each initial and follow-up hazard assessment pursuant to this section and make a written finding that, in the specialist's judgment based on cross-connection control principles, the City's hazard assessment properly identified all hazards at the time of the assessment, the appropriate degree of hazards, and the corresponding backflow protection.

2.2 Hazard Assessment Process

In order to assess each connection in the City's water distribution system for potential cross connection the City will undertake assessments in the following phases. As part of the hazard assessment process the City has created a tracking system for the assessments made under the CCCMP. See CCCMP **Appendix D**.

Data will be gathered and logged into the assessment database in three phases. The assessment database will be maintained per the procedures outlined in **Section 9** of the CCCMP**.**

- Phase 1 - All connections with existing backflow prevention assemblies at the meter connection
- Phase 2 - All commercial/industrial connections without backflow prevention assemblies at the meter connection
- Phase 3 - All residential connections with AMI (Automated Meter Infrastructure) meters

2.2.1 Phase 1 - Connections with Backflow Protection

The City currently has, as of April 6, 2025, 2,110 connections with backflow protection installed at the meter. For connections with backflow protection the City will enter each address into the assessment tracking system indicating what type of BPA has been installed. The City's Cross Connection Control Specialist will review the data when entered into the assessment database to verify that an appropriate BPA has been installed on the meter connection. The Cross Connection Control Specialist's review date will be noted in the assessment database.

It is assumed that a Cross Connection Control Specialist can process (5) existing connections with backflow protection installed at the meter per available hour, and the total number of annual Cross Connection Control Specialist available hours is 93 hrs./yr (5% of total annual 1,867 hrs), for a total of 465 existing connections per year per Cross Connection Control Specialist assigned by the City to cross connection control.

Based on the availability of the Cross Connection Control Project Specialist the City has determined that this phase of the assessments can be completed within 2.7 years from the adoption of the City's CCCMP.

2.2.2 Phase 2 - Commercial/Industrial/Institutional Connections without Backflow Protection

The City currently has as of 05/27/2025, 834 commercial/industrial/institutional sites without backflow protection installed at the meter. For those non-residential connections without an approved BPA the City will provide a Site Assessment Form to provide information regarding onsite conditions which would necessitate the installation of an approved BPA at the meter connection.

The site assessment form to be completed by City staff may be found in CCCMP **Appendix F**.

It is assumed that a Cross Connection Control Specialist can completed one site visit for existing connections without backflow protection installed at the meter per available hour, and the total number of annual Cross Connection Control Specialist available hours is 93 hrs./yr (5% of total annual 1,867 hrs), for a total of 465 existing commercial/industrial connections without per year per Cross Connection Control Specialist assigned by the City to cross connection control.

Based on the availability of the Cross Connection Control Project Specialists the City has determined that this phase of the assessments can be completed within 1 year and 10 months from the completion of Phase 1.

- If the Cross Connection Control Specialist determines that based on the site assessment form that an approved BPA is not required, they will note that in the assessment database and the reason for not requiring an approved BPA.

- If the Cross Connection Control Specialist determines that based on the site assessment form that an approved BPA is required, they will note that in the assessment database and notify the commercial/industrial customer that an approved BPA must be installed at the meter connection and note that determination in the assessment database.

2.2.3 Phase 3 – Residential Connections with AMI Meters

There are, as of April 23, 2025, a total of 23,092 residential AMI meters installed in the City's water distribution system. All residential connections are equipped with AMI meters and flow is monitored on a continuous basis and can inform the City of a backflow condition when it occurs.

For those residential connections the City will assess each site by means of office-based tools such as:

- City will utilize GIS system, and have excel spreadsheets available to export, and create an attribute for Specialist to sign, per each physical address or every meter. The following will supplement:
    - Reviewing sites via Google Maps or other aerial photography software

- Reviewing tract maps to review blocks of residential customer in a common building area or zone.
- Using meter route maps or other billing information databases.

The office-based assessment will review sites for:

- Private water wells
- Other auxiliary water supplies
- Sewer lift stations
- Graywater systems

The office-based assessments would be conducted based on the available Cross-Connection Control Program Specialist hours to review the office-based databases and/or files.

- If the Cross-Connection Control Program Specialist determines that based on the office-based assessment that an approved BPA is not required, they will note that in the assessment database.

- If the Cross-Connection Control Program Specialist determines that based on the office-based that an approved BPA is required, they will note that in the assessment database and notify the residential customer that an approved BPA must be installed at the meter connection and note that the customer has been contacted in the assessment database.

It is assumed that a Cross Connection Control Specialist can process (25) existing residential connections with AMI meters installed per available hour, and the total number of annual Cross Connection Control Specialist available hours is 93 hrs./yr (5% of total annual 1,867 hrs), for a total of 465 existing residential connections equipped with AMI meters per year per Cross Connection Control Specialist assigned by the City to cross connection control.

Based on the availability of the Cross Connection Control Project Specialist the City has determined that this phase of the assessments can be completed within 9 years and 11 months from the completion of Phase 2.

If necessary, the City will follow up with the residential customers.

3 Operating Rules or Ordinances

In accordance with the State CCCPH, Section 3.1.3 (a)(1), and Section 3.1.4(b)(1) and Section 3.1.4 (b)(3),the City must have operating rules, ordinances, by-laws, or a resolution to implement the cross-connection program. The City must have legal authority to implement corrective actions in the event a water user fails to comply in a timely manner with the City's provisions regarding the installation, inspection, field testing, or maintenance of BPAs required pursuant to this Section. Such corrective actions must include the City's ability to perform at least one of the following:

- Deny or discontinue water service to a water user,
- Install, inspect, field test, and/or maintain a BPA at a water user's premises, or
- Otherwise address in a timely manner a failure to comply with the City's cross-connection control program.

The City's backflow and cross-connection prevention requirements are contained in the City's Municipal Code, Chapter 14.10 – Cross-Connection Control Program Sections 14.10.005 through 14.10.045. A copy is attached as CCCMP **Appendix C**.

City staff are currently in the process of updating the City's Municipal Code, Chapter 14.10 – Cross-Connection Control Program Sections 14.10.005 through 14.10.045, which will then be adopted by the City of Newport Beach City Council.

The first informational presentation of the updated Code will take place at the July 22, 2025 City Council Meeting. Then the updated Code and Ordinance will go to the next City Council meetings for 2nd reading currently scheduled for August 26th. The City's Municipal Code effective date will be September 26th.

4 Backflow Prevention

In accordance with the State CCCPH, Section 3.1.3 (a)(4) and Section 3.2.2 – the City must ensure that actual and potential cross-connections are eliminated when possible or controlled by the installation of approved BPAs or AG's consistent with the requirements of the Article 3 of the State CCCPH and the sections to follow. The City has 269 backflow assemblies installed at the water connections, and 25 onsite backflow assembles which are in the City's tracking database and included in their annual backflow testing reports.

4.1 Backflow Prevention Requirements

(a) The City 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 (see Section 4.2.1 for installation and approved BPA criteria). When a DC is required or referenced in the State CCCPH, a DCDA or DCDA-II type of assembly may be substituted if appropriate. When an RP is required or referenced in the State CCCPH, an RPDA or RPDA-II type of assembly may be substituted if appropriate.

(b) The BPA installed must be no less protective than that which is commensurate with the degree of hazard at a user premises, as specified in this section and as determined based on the results of the hazard assessment conducted pursuant to CCCMP Section 3.

(c) Unless specified otherwise in this section, a City must, at all times, protect its distribution system from high hazard cross-connections (see CCCMP **Appendix D** for examples), through premises containment, through the use of AG(s) or RP(s).

(1) Following State Water Board review and approval, the City may implement an alternate method of premises containment in lieu of a required AG provided that the proposed alternative would provide at least the same level of protection to public health.
(2) Following State Water Board review and approval, the City may accept internal protection in lieu of containment when premises containment is not feasible.

(d) Except as otherwise allowed or prohibited in statute or in CCR Title 22, Division 4, Chapter 3, a swivel-ell may be used instead of an AG for premises containment protection when temporarily substituting tertiary recycled water use areas with potable water from a PWS if all the following criteria are met:

(1) the swivel-ell is approved by the State Water Board;
(2) the City has a cross-connection control program, required pursuant to the State CCCPH Section 3.1.3, and the use and operation of the swivel-ell is described in the CCCMP required pursuant to the State CCCPH Section 3.1.4;
(3) the design and construction-related requirements of the swivel-ell adheres to the criteria in CCCMP **Appendix G;**

(4) at least every 12 months, inspections are performed and documented to confirm ongoing compliance with the design and construction-related requirements in CCCMP **Appendix G;**
(5) the RP used in conjunction with the swivel-ell is field tested and found to be functioning properly:

(A) immediately upon each switchover to potable water use, a visual inspection of the RP must be completed
(B) within 72 hours of each switchover to potable water use, a field test must be completed, and
(C) at least every 12 weeks the use site is supplied with potable water; and

(6) there is a legally binding agreement between the City and the entity supplying the recycled water, signed by those with relevant legal authority, which includes the following requirements:

(A) The State Water Board will 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 field testing required in paragraph (5);
(B) a trained representative of the City be present to supervise each switchover; and
(C) within seven days of each switchover, if requested by the State Water Board, the City will submit a written report describing compliance with this subsection, as well as potable and recycled water usage information.

(e) Except as noted below, the City must ensure its distribution system is protected with no less than DC protection for a user premises with a fire protection system within ten years of adoption of the State CCCPH.

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

(2) For existing fire protection systems that do not meet the State CCCPH, Section 3.2.2 (e)(3) or cannot install DC protection within ten years of adoption of the State CCCPH, the City may propose in the CCCMP submitted for compliance with the State CCCPH Section 3.1.4:

(A) an alternative date; or
(B) an alternative method of backflow protection that provides at least the same level of protection to public health.

(3) A BPA is not necessary for a low hazard fire protection system on a residential user premises if the following criteria are satisfied:

(A) the user premises has only one service connection to the City;
(B) 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;
(C) a single, water industry standard, water meter is provided to measure combined domestic flow and fire protection system flow;
(D) the fire protection system is constructed of piping materials certified as meeting NSF/ANSI Standard 61; and
(E) 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.

(f) The State Water Board and the City may, at their discretion, require a water user to designate a user supervisor when the user premises has a multi-piping system that conveys various types of fluids and where changes in the piping system are frequently made. If a user supervisor is designated the following is required:

(1) The user supervisor is responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipelines and equipment. The user supervisor must be trained on the fluids used and backflow protection for the premise, and must inform the City of changes in piping, and maintain current contact information on file with the City; and;
(2) The City must include in the CCCMP required in the State CCCPH Section 3.1.4 the training and qualification requirements for user supervisors, identify the entity that will provide the user supervisor training, and frequency of any necessary recurring training. The training must adequately address the types of hazards and concerns typically found.

(g) Facilities producing, treating, storing, or distributing drinking water that are an approved water supply or water recycling plants as defined by CCR Title 22, Section 60301.710 must have proper internal protection from cross-connections to ensure that all drinking water produced and delivered to customers and workers at those facilities is free from unprotected cross-connections.

4.2 Backflow Prevention Assemblies

4.2.1 Standards for Types of Backflow Protection

(a) Each AG used for the CCCMP must meet the requirements in Table 1, Minimum Air Gaps for Generally used Plumbing Fixtures, page 4 of the American Society of Mechanical Engineers (ASME) A112.1.2- 2012(R2017).

(b) Each replaced or newly installed PVB, SVB, DC, and RP for protection of the PWS must be approved through both laboratory and field evaluation tests performed in accordance with at least one of the following:

(1) Standards found in Chapter 10 of the *Manual of Cross-Connection Control, Tenth*

Edition, published by the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research;
(2) certification requirements for BPAs in the Standards of ASSE International current as of 2022 that include ASSE 1015-2021 for the DC, ASSE 1048-2021 for the DCDA & DCDA-11, ASSE 1013-2021 for the RP, and ASSE 1047-2021
(3) for the RPDA & RPDA-II and must have the 1YT mark.

(c) BPAs must not be modified following approval granted under Section 4.2.1(b). The City requires that BPA testers notify the City if a water user or City-owned BPA has been modified from the CCCMP Section 4.2.1(b) approval.

4.2.2 Installation Criteria for Backflow Protection

(a) For AGs, the following is required:

(1) The receiving water container must be located on the water user's premises at the water user's service connection unless an alternate location has been approved by the City;
(2) all piping between the water user's service connection and the discharge location of the receiving water container must be above finished grade and be accessible for visual inspection unless an alternative piping configuration is approved by the City;
(3) the City must ensure that the AG specified in the State CCCPH Section 3.3.1 (a) has been installed; and
(4) any new air gap installation at a user's service connection must be reviewed and approved by the State Water Board prior to installation.

(b) RPs must be installed such that the lowest point of an assembly is a minimum of twelve inches above grade, and a maximum of thirty-six inches above the finished grade, unless an alternative is approved by the PWS.

(c) DCs installed or replaced after the adoption of the State CCCPH must be installed according to the State CCCPH Section 3.3.2 (b). Below ground installation can be considered if approved by the City where it determines no alternative options are available.

(d) A PVB or SVB must be installed at a minimum of twelve inches above all downstream piping and outlets.

(e) SVBs may not be used for premises containment. PVBs may only be used for roadway right of way irrigation systems as premises containment where there is no potential for backpressure.

(f) A RP or DC installed after the adoption of the State CCCPH must have a minimum side clearance of twelve inches, except that a minimum side clearance of twenty-four inches must be provided on the side of the assembly that contains the test cocks. The City may

approve alternate clearances providing that there is adequate clearance for field testing and maintenance.

(g) Backflow protection must be located as close as practical to the water user's service connection unless one or more alternative locations have been approved by the City. If internal protection is provided in lieu of premises containment, the City must obtain access to the user premises and must ensure that the on-site protection meets the requirements of this Chapter for installation, field testing, and inspections.

(h) Each BPA and air gap separation must be accessible for field testing, inspection, and maintenance.

The City's Standard Drawings and Specifications for each type of BPA is contained in **Appendix I.**

5 Non-Testable Devices

5.1 Non-testable backflow preventer testing procedures

There are non-testable backflow preventer devices under City ownership or administration. Hose-bibb vacuum breakers is an example of the most common types of non-testable backflow prevention devices for the City.

Table 5 -1 Location of Non-Testable Backflow Prevention Devices

Location of Non-Testable Backflow Preventer					
Location	**Air Gap**	**Atmospheric Vacuum Breaker**	**Hose-bibb Vacuum Breaker**	**Dual Check Valve**	**Identification Potential Onsite Hazard**
Headquarters	No	Yes	Yes	No	No Potential Onsite Hazards
Wells	No	Yes	Yes	No	No Potential Onsite Hazards
Reservoir	No	Yes	Yes	No	19.5% Ammonium Hydroxide 12.5% Sodium Hypochlorite

The City staff inspects all facilities 2-3 times per week.

6 Certified Backflow Prevention Assembly Testers and Certified Cross-Connection Control Specialists

In accordance with the State CCCPH, Section 3.1.3 (a)(5), Section 3.1.4 (b)(6), and Section 3.4.1 – the City must ensure that each BPA required by the CCCMP to protect the City's domestic water system is field tested by a person with valid certification from a certifying organization recognized by the State Water Board pursuant to the State's CCCPH.

6.1 Backflow Tester Certification

All backflow testers testing within the service area of the City must provide evidence of current certification from a State Water Board-recognized organization certifying backflow prevention assembly testers. Certifying organizations must be recognized by the State Water Board in accordance with requirements of the State CCCPH and ISO/IEC 17024. Beginning on July 1, 2025, only those testers with a valid certification from a State Water Board recognized certifying organization shall be allowed to test BPA's in the City's service area, certifications from any other entity will be considered invalid.

6.1.1 Backflow Tester List

The City does not maintain a list of approved Backflow Testers. A copy of the list of approved testers can be downloaded from the American Water Works Association website at https://www.ca-nv-awwa.org/

Backflow Testers do not need to hold a current City business license in order for the backflow test within the City.

The City has no staff who are certified by a State Water Board recognized certifying organization as Backflow Testers.

6.2 Cross-Connection Control Specialist Certification

All Cross-Connection Control Specialists, used by the City pursuant to the requirements of the State CCCPH, shall have valid certification from a State Water Board recognized certifying organization, which complies with the State CCCPH, will be considered to be a State Water Board recognized certifying organization.

Beginning three years after the effective date of the State CCCPH, only those Cross-Connection Control Specialists with a valid certification from a State Water Board recognized certifying

organization shall satisfy the requirements of the State CCCPH. Certifications obtained by organizations that do not meet the requirements of the State CCCPH will be invalid.

The City has two staff members who are certified by a State Water Board recognized certifying organization as Cross Connection Control Specialists. Their information is shown in **Table 6-1** below.

Table 6 - 1 Certified Cross Connection Control Specialists

Name	Agency	Address	Phone No.	Email Address	AWWA Cert. No.	Exp. Date
Toan Van	City of Newport Beach	949 W. 16th Street Newport Beach, CA 92663	(949) 718-3412	tvan@newportbeachca.gov	02351	8/31/2026
Casey Parks	City of Newport Beach	949 W. 16th Street Newport Beach, CA 92663	(949) 718-3477	tvan@newportbeachca.gov	02026	7/31/2027

7 Backflow Incident Response, Reporting and Notification

In accordance with the State CCCPH, Section 3.1.3(a)(8), Section 3.1.4 (b)(7), and Section 3.5.2 the City has developed and implemented procedures for investigating and responding to suspected or actual backflow incidents. The procedure for responding to backflow incidents, reporting any incidents, and reporting those incidents, will be:

7.1 Backflow Incident Response Procedure

In the event that a suspected backflow incident occurs in the City, the City's response will include, but not limited to, the following:

(a) Consideration of complaints or reports of changes in water quality as possible incidents of backflow;
(b) Water quality sampling and pressure recording; and
(c) Documentation of the investigation, and any response and follow-up activities.

7.2 Backflow Incident Notification

In the event that a backflow incident occurs the Cross-Connection Control Coordinator will provide the following notification:

(a) The Cross-Connection Control Coordinator will notify the State Water Board and Orange County Health Care Agency of any known or suspected incident of backflow within 24 hours of the determination. If required by the State Water Board, the City will issue a Tier 1 public notification pursuant to CCR, Title 22, Section 64463.1.

(b) If required by the State Water Board, the City will submit, by a date specified by the State Water Board, a written incident report describing the details and affected area of the backflow incident, the actions taken by the City in response to the backflow incident, and the follow up actions to prevent future backflow incidents.

The written report form is in CCCMP **Appendix H.**

8 Cross-Connection Control Program Coordinator

In accordance with the State CCCPH, Section 3.1.3 (a)(2) and Section 3.1.4 (b)(8), the City must designate at least one individual involved in the development of and be responsible for the reporting, tracking, and other administration duties of its cross-connection control program. Further for public water systems with more than 3,000 service connections the Cross-Connection Control Program Coordinator must be a Cross-Connection Control Specialist.

The City's water system includes 26,500 domestic water connections as of April 23, 2025. Therefore, the City must have a Cross-Connection Control Program Coordinator. The Coordinator does have to be a certified Cross-Connection Control Specialist.

The City's Cross-Connection Control Program Coordinator is:

Toan Van
Water Quality Coordinator
City of Newport Beach, Utilities Department
949 W. 16th Street
Newport Beach, CA, 92626
Phone: (949) 718-3412
Email: tvan@newportbeachca.gov
AWWA Certification No. 02351
Expires: 8/31/2026

The City's Cross-Connection Control Program Specialist is:

Toan Van
Water Quality Coordinator
City of Newport Beach, Utilities Department
949 W. 16th Street
Newport Beach, CA, 92626
Phone: (949) 718-3412
Email: tvan@newportbeachca.gov
AWWA Certification No. 02351
Expires: 8/31/2026

The City's CCCMP was developed in consultation with their Cross-Connection Control Specialist(s) because the City's domestic water system has more than 1,000 service connections.

The City's designated Cross-Connection Control Specialist can be contacted within one hour, per the requirement of the State CCCPH for a PWS with 3,000 or more service connections.

8.1 Cross Connection Control Specialist Designee

In the event the City's Cross Connection Control Specialist is not available due to vacation, sickness, or other reason, the duties of the Cross Connection Control Specialist will be carried out by:

Back-up City Cross Connection Control Coordinator and Specialist

Casey Parks
Superintendent
City of Newport Beach, Utilities Department
949 W. 16th Street
Newport Beach, CA, 92626
Phone: (949) 718-3477
Email: cparks@newportbeachca.gov
AWWA Certification No. 02026
Expires: 7/31/2027

9 Recordkeeping

In accordance with the State CCCPH, Section 3.1.3(a)(7) and Section 3.1.4 (b)(9) the City has developed and implemented a recordkeeping system for:

1. Backflow prevention assemblies (BPA)
2. Cross-connection information.
3. Commercial/Industrial and Residential site assessments.

This recordkeeping system complies with the State CCCPH section 3.5.1, and is described in this section.

9.1 Records Retained

The City maintains the following records:

(a) The hazard assessments for each user premise, conducted pursuant to CCCPH section 3.2.1 (Hazard Assessment).

(b) For each BPA, the associated hazard or application, location, owner, type, manufacturer and model, size, installation date, and serial number.

(c) For each AG installation, the associated hazard or application and the location, owner, and as-built plans of the AG.

(d) Results of all BPA field testing, AG inspections, swivel-ell inspections, and field tests for the previous three calendar years, including the name, test date, repair date, and certification number of the backflow prevention assembly tester for each BPA field test and AG and swivel-ell.

(e) Repairs made to, or replacement or relocation of, BPAs for the previous three calendar years.

(f) The most current cross-connection tests (e.g., shutdown test, dye test), if recycled water use on the premise.

(g) If a User Supervisor is designated for a user premise, the current contact information for the User Supervisor and Water User, and any applicable training and qualifications as described by State CCCPH section 3.2.2(f).

(h) Descriptions and follow-up actions related to all backflow incidents.

(i) If any portion of the cross-connection control program is carried out under contract or agreement, a copy of the current contract or agreement.

(j) The current Cross-Connection Control Management Plan as required in the State CCCPH Section 3.1.4.

(k) Any public outreach or education materials issued as required in the State CCCPH section 3.1.3.(a)(7) for the previous three calendar years.

(l) All records retained by the City will be made available to the State Water Board upon request.

(m) Records of Commercial/Industrial site assessments.

(n) Records of Residential site assessments.

9.2 Recordkeeping Policy and Procedures

The City has a written records retention policy which is contained in **Section 9.** The procedures are generally described below:

9.2.1 Backflow Prevention Assembly Test Results

- How are the BPA notices generated, computer system or staff person?
  Generated by City's Backflow Management System (BMS)
- How are they distributed to customers?
  Direct mail
- How are they returned?
  Hard copy and via email as a PDF.
- How are the test records stored?
  PDFs are filed electronically in the City of Newport Beach Backflow App.
- How is it filed?
  By month and City device number
- Where are they stored?
  City of Newport internal server drive via the Backflow App
- Who is responsible for the storage?
  Toan Van
  Water Quality Coordinator
  949 W. 16th Street, Newport Beach, CA 92663
  tvan@newportbeachca.gov
  949-718-3412
- How long are the records kept?
  Electronic (i.e. PDFs) are kept permanently. Hard copies are destroyed and not kept or filed.

9.2.2 Phase 1 - Connections with Backflow Protection - Assessments

Electronic assessment document is prepared as an Excel spreadsheet. Data is reviewed and signed by the Cross Connection Control Specialist.

- If no action is required -
    - Assessment stored electronically:
        On the City of Newport Beach internal server
    - Storage location:
        Assessments requiring no action are stored electronically in the City's internal server.
    - Responsible person
        Toan Van
        Water Quality Coordinator
        City of Newport Beach
        949 W. 16th St., Newport Beach, CA, 92626
        949-718-3412
        tvan@newportbeachca.gov
    - Record retained for:
        Files are retained indefinitely.
    - Record disposal method after retained time limit:
        Electronic files are saved in perpetuity.
    - Assessment storage method:
        By customer address.
    - Assessment electronic storage location:
        The City's internal IT servers are utilized as an electronic storage location where the data from the assessment is stored.
- If action is required
    - Notification generated by Cross-Connection Control Program Specialist that a backflow is required.
    - Notification mailed to residential customer.
    - Specialist follows up in **7** days to verify that backflow has been installed.
    - Action noted in residential assessment database.
    - Action noted by the Cross-Connection Control Program Specialist,
        Toan Van
        Water Quality Coordinator
        City of Newport Beach
        949 W. 16th St., Newport Beach, CA, 92626
        949-718-3412
        tvan@newportbeachca.gov

9.2.3 Phase 2 – Commercial/Industrial Connections without Backflow Protection – Assessments

Site assessment document is completed by City personnel. The site assessment document is reviewed by the Cross-Connection Control Program Specialist, scanned and signed in Adobe. Data is stored electronically by the Cross-Connection Control Program Specialist.

Electronic site assessment document which has been reviewed and signed by the Cross-Connection Control Program Specialist in Adobe has the following process:

- Where is the hard filed
  After scanning the hard copy is destroyed.
- How filed:
  Filed electronically on the City's internal computer server.
- Responsible person for the filing:
  Toan Van
  Water Quality Coordinator
  City of Newport Beach
  949 W. 16th St., Newport Beach, CA, 92626
  949-718-3412
  tvan@newportbeachca.gov
- How long is document retained:
  Files are retained indefinitely.
- How file is disposed of after the holding period:
  Electronic files are saved in perpetuity.
- Responsible person for disposal of the expired document:
  Toan Van
  Water Quality Coordinator
  City of Newport Beach
  949 W. 16th St., Newport Beach, CA, 92626
  949-718-3412
  tvan@newportbeachca.gov

- If no action is required -
  - Assessment stored electronically:
    On the City of Newport Beach internal server
  - Storage location:
    Assessments requiring no action are stored electronically in the City's internal server.
  - Responsible person
    Toan Van
    Water Quality Coordinator
    City of Newport Beach
    949 W. 16th St., Newport Beach, CA, 92626
    949-718-3412
    tvan@newportbeachca.gov

- Record retained for:
  Files are retained indefinitely.
- Record disposal method after retained time limit:
  Electronic files are saved in perpetuity.
- Assessment storage method:
  By customer address.
- Assessment electronic storage location:
  The City's internal IT servers are utilized as an electronic storage location where the data from the assessment is stored.

- If action is required
  - Notification generated by Cross-Connection Control Program Specialist that a backflow is required.
  - Notification mailed to residential customer.
  - Specialist follows up in **7** days to verify that backflow has been installed.
  - Action noted in residential assessment database.
  - Action noted by the Cross-Connection Control Program Specialist,
    Toan Van
    Water Quality Coordinator
    City of Newport Beach
    949 W. 16th St., Newport Beach, CA, 92626
    949-718-3412
    tvan@newportbeachca.gov

9.2.4 Phase 3 – Residential Connections with AMI - Assessments

Residential assessments conducted in accordance with **Section 2**. Electronic assessment document submitted as a pdf which is reviewed by the Cross-Connection Control Program Specialist and signed in Adobe, data is stored electronically by the Cross-Connection Control Program Specialist.

- If no action is required -
  - Assessment stored electronically:
    On the City of Newport Beach internal server
  - Storage location:
    Assessments requiring no action are stored electronically in the City's internal server.
  - Responsible person
    Toan Van
    Water Quality Coordinator
    City of Newport Beach
    949 W. 16th St., Newport Beach, CA, 92626
    949-718-3412
    tvan@newportbeachca.gov
  - Record retained for:
    Files are retained indefinitely.
  - Record disposal method after retained time limit:
    Electronic files are saved in perpetuity.

- Assessment storage method:
  By customer address.
- Assessment electronic storage location:
  The City's internal IT servers are utilized as an electronic storage location where the data from the assessment is stored.

- If action is required
  - Notification generated by Cross-Connection Control Program Specialist that a backflow is required.
  - Notification mailed to residential customer.
  - Specialist follows up in **7** days to verify that backflow has been installed.
  - Action noted in residential assessment database.
  - Action noted by the Cross-Connection Control Program Specialist,
    Toan Van
    Water Quality Coordinator
    City of Newport Beach
    949 W. 16th St., Newport Beach, CA, 92626
    949-718-3412
    tvan@newportbeachca.gov

10 User Supervisors

In accordance with the State CCCPH, Section 3.2.2 (3)(f),The State Water Board and City may, at their discretion, require a water user to designate a user supervisor when the user premises has a multi-piping system that conveys various types of fluids and where changes in the piping system are frequently made. If a user supervisor is designated the following is required:

(1) The user supervisor is responsible for the avoidance of cross-connections during the installation, operation and maintenance of the water user's pipelines and equipment. The user supervisor must be trained on the fluids used and backflow protection for the premise, and must inform the City of changes in piping, and maintain current contact information on file with the City; and,

(2) The City must include in the CCCMP required in CCCPH Section 3.1.4 the training and qualification requirements for user supervisors if required by the State Water Board or City, identify the entity that will provide the user supervisor training, and frequency of any necessary recurring training. The training must adequately address the types of hazards and concerns typically found.

The City has not required any user supervisors for use sites within the City.

11 Backflow Prevention Assembly Testing and Reporting

In accordance with the State CCCPH, Section 3.1.3 (a)(6) – the City must ensure that each BPA required by the CCCMP to protect the City's domestic water system is field tested. The City must develop and implement a procedure for ensuring all BPAs are field tested, inspected, and maintained and AG's are inspected and maintained in accordance with the State CCCPH, Section 3.3.3.

1. All BPAs installed in the City in compliance with it CCCMP must be field tested following installation, repair, depressurization for winterizing, or permanent relocation. All required field testing must be performed by certified backflow prevention assembly tester.

2. BPAs must be field tested at least annually. The State CCCPH does not preclude the City, the State Water Board, or a local health agency from requiring more frequent field testing for premises with high hazard cross-connection or BPA at increased risk of testing failure.

3. Air-gap separations must be visually inspected at least annually by a certified as backflow prevention assembly tester or certified as a cross-connection control specialist.

4. The City must receive passing field tests before providing continuous service to a water user with a newly installed BPA.

5. BPAs that fail the field test must be repaired or replaced within 30 days of notification of the failure by the City. Extensions may be allowed by the City at the discretion of the Cross Connection Control Specialist.

Backflow prevention assembly testers must notify the City within one day if a backflow incident or an unprotected cross-connection is observed at the BPA or prior to the user premises during field testing. The City will immediately investigate and discontinue service to the user premises if a backflow incident is confirmed, and water service will not be restored to that user premises until the City receives a confirmation of a passing BPA field test from a backflow prevention assembly tester and the assembly is protecting the City.

11.1 Backflow Testing Notification Process

Each water user with a BPA on the service connection must comply with the following schedule in order to be in compliance with the CCCMP and continue to receive water service from the City.

- First notice – the first annual notice of BPA testing required is sent to the user. Mailed to all premises with BPA. User has 30 days to provide BPA test results by return mail or email

- Second notice – if the BPA test results are not received by the City within 30 days after the first notice was sent to the user, a second notice will be sent to the user – by mail, giving the customer 15 days to provide the required BPA test results.

- Third notice– if the BPA test results are not received by the City within 15 days after the second notice was sent to the user, City staff will visit the customer to inform them of the BPA testing requirements and inform them that failure to provide the BPA test results will lead to terminating water service within 24 hrs.

- Termination of water service – if the user fails to provide the required BPA test results with the 24-hour final notice water service will be terminated or under the City of Newport Beach's discretion.

11.2 Damaged, missing, or improperly installed backflow prevention assemblies.

In the event that a backflow prevention assembly is missing (or stolen), installed incorrectly, illegally modified, or tampered with, the City will notify the user that the BPA missing (or stolen), installed incorrectly, illegally modified, or tampered with, and provide them 30 days to replace, repair, or re-install the BPA.

If the BPA has not been re-installed or repaired within the 30 days, water service will be terminated or under the City of Newport Beach's discretion.

12 Public Outreach and Education

In accordance with State CCCPH, Section 3.1.3 (a)(9) and Section 3.1.4 (b)(12) – the City has developed a cross-connection control public outreach and education program that is intended to educate staff, customers, and the community about backflow protection and cross-connection control.

The City has a designated Public Information Officer (PIO) that provides a point of contact for the City regarding the City's cross-connection control and backflow protection program and other water related issues. The City's PIO is:

John Pope
Public Information Manager
949-644-3031
jpope@newportbeachca.gov

Public Outreach to educate the City's customers on backflow and cross-connection control include information on backflow and cross-connections on the City's website which is:

https://www.newportbeachca.gov/government/departments/utilities/water-services/water-quality

In addition, backflow and cross-connection prevention may be distributed by other means, including but not limited to, periodic water bill inserts, information pamphlet distribution, new customer documentation, emails, and additions to the City's Consumer Confidence Reports (CCR). The City's CCR can be reviewed at:

https://www.cityofnewport.com/en-us/city-hall/departments/utilities/drinking-water/consumer-confidence-reports

13 Local Entity Coordination

In accordance with the State CCCPH, Section 3.1.3 (a)(10) and Section 3.1.4 (b)(13) The City must coordinate with applicable local entities that are involved in either cross-connection control or public health protection to ensure hazard assessments can be performed, appropriate backflow protection is provided and provide assistance in the investigation of backflow incidents. Local entities may include but are not limited to plumbing, permitting, or health officials, law enforcement, fire departments, maintenance, and public and private entities.

For the City, the local entities which are involved in cross-connection control include, but are not limited to:

City of Newport Beach Fire Dept.
Fire Prevention Division
Nadine Morris, Senior Fire Inspector
100 Civic Center Dr.
Newport Beach, CA 92660
949-644-3105
nmorris@nbfd.net
Coordination includes: Fire service laterals and residential fire sprinklers.

State Water Resource Control Board, Division of Drinking Water
Minliang Shih
2 MacArthur Place, Suite 150
Santa Ana, CA 92707
714-547-0430
Minliang.shih@waterboards.ca.gov
Coordination includes: cross connections and backflow devices.

Orange County Health Care Agency
OCHA, Health Care Agency
Sham Elmishad, Water Quality Supervisor
405 W. 5th Street, Santa Ana, CA 92701
(714) 433-6280
slemishad@ochca.com
Coordination includes: cross connections, internal plumbing

The City intends to include coordination with other local PWS through events which may include, but not be limited to, semi-annual gatherings with other PWS' Cross Connection Control Coordinators, public outreach events, and vendor workshops.

Appendix A

What is a Cross Connection?

Appendix A

Background on Backflow Protection and Cross-Connection Control

A.1 What is a Cross-Connection?

A cross-connection is an interconnection between a potable water supply and a non- potable source via any actual or potential connection or structural arrangement between a PWS and any source or distribution system containing liquid, gas, or other substances not from an approved water supply. Bypass arrangements, jumper connections, removable sections, swivel or change-over devices and other temporary or permanent devices through which, or because of which backflow can occur are considered to be cross-connections.[1] The State CCCPH includes acceptable installation criteria for swivel-ell and other types of backflow prevention assemblies (BPAs) to prevent backflow.

Backflow is the undesired or unintended reversal of flow of water and/or other liquids, gases, or other substances into a PWS's distribution system or approved water supply.

The presence of a cross-connection represents a location in a distribution system through which backflow of contaminants or pollutants can occur. Backflow occurs when a non-potable source is at a greater pressure than the potable water distribution system. Backflow can occur from either backsiphonage or backpressure. Backsiphonage occurs when a non-potable source enters the drinking water supply due to negative (i.e., sub-atmospheric) distribution system pressure. Backpressure occurs when the pressure from a non-potable source exceeds the pressure in the potable water distribution system.

Backsiphonage may be caused by a variety of circumstances, such as main breaks, flushing, pump failure, or emergency firefighting water demand. Backpressure may occur when heating, cooling, waste disposal, or industrial manufacturing systems are connected to potable supplies and the pressure in the external system exceeds the pressure in the distribution system. Both situations act to change the direction of water, which normally flows from the distribution system to the customer, so that non-potable substances from industrial, commercial, or residential premises flows back into the distribution system through a cross-connection.

Cross-connections are not limited to industrial or commercial facilities. Submerged inlets are found on many common plumbing fixtures and are sometimes necessary features of the fixtures if they are to function properly. Examples of this type of design are siphon-jet urinals or water closets, flushing rim slop sinks, and dental cuspidors.

Older bathtubs and lavatories may have supply inlets below the flood level rims, but modern sanitary design has minimized or eliminated this cross-connection in new fixtures. Chemical and industrial process vats sometimes have submerged inlets where the water pressure is used as an aid in diffusion, dispersion, and agitation of the vat contents. Even though a supply pipe may be installed above a vat, backsiphonage can still occur. Siphon action has been shown to raise a liquid in a pipe such as water almost 34 feet. Some submerged inlets are difficult to control,

including those which are not apparent until a significant change in water level occurs or where a supply may be conveniently extended below the liquid surface by means of a hose or auxiliary piping. A submerged inlet may be created in numerous ways, and its detection may be difficult.

Chemical and biological contaminants have caused illness and deaths during known incidents of backflow, with contamination affecting several service connections, and the number of incidents reported is believed to be a small percentage of the total number of backflow incidents that actually occur. The public health risk from cross-connections and backflow is a function of a variety of factors including cross-connection and backflow occurrence and type and amount of contaminants.

A.2 Purpose of a Cross-Connection Control Program

The purpose of a cross-connection control program is to prevent the occurrence of backflow into a PWS's distribution system in order to protect customers from contamination or pollution from any on-site hazards. Properly installed and maintained BPAs, devices or methods provide protection against the threat posed by many conditions typically found on a user's premise.

The use of approved BPAs ensures that the appropriate performance evaluation of the assembly was conducted. It is important and required by the State CCCPH to select and properly install an approved BPA that is capable of protecting the distribution system from the hazard identified. The success of a program depends on individuals that are knowledgeable about cross-connection control to identify actual and potential hazards, apply principles of backflow protection and prevention, and implement cross-connection control policies and procedures. A successful program will have ongoing surveillance of a PWS to ensure BPAs, devices or methods are working and identify new hazards or changes in the distribution system. Certified specialists are needed to properly evaluate the degree of hazard that exists in the distribution system. Hazards typically identified in distribution systems along with the required level of protection are specified in Chapter 3 of the State CCCPH.

A.3 Notes on Applicability of the Cross-Connection Control Policy Handbook

The State CCCPH provides the basis for regulating the use and management of cross-connection control programs and BPAs in PWSs, and related requirements for supporting programs and policies. Activities or uses outside of the scope of the authority of the State Water Board to regulate PWSs are not regulated by the State CCCPH, including California Plumbing Code requirements and definitions not related to PWSs.

Recycled water cross-connection control installations and programs for the purposes of protecting the recycled water supply are not regulated by the State CCCPH, although a PWS that uses recycled water is regulated by the State CCCPH to ensure that a PWS's drinking water system has adequate backflow protection from a recycled water system.

Water systems that do not meet the definition of a PWS (e.g., "State Small Water Systems"

under CCR Title 22, Article 3) are not regulated by the CCCPH, although they may need to comply with the California Plumbing Code, local health agencies, and other laws or entities.

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[1] California Department of Health Services (DHS), Public Water Supply Branch. (1988). *Guidance Manual for cross connection Control Program (Green Manual).* California Department of Health Services

Appendix B

Assembly Bill 1671 (2017, Chapter 533)
Assembly Bill 1180 (2019, Chapter 455)

Assembly Bill No. 1671

CHAPTER 533

An act to amend Section 116810 of, and to add Sections 116407 and 116555.5 to, the Health and Safety Code, relating to drinking water.

[Approved by Governor October 6, 2017. Filed with Secretary of State October 6, 2017.]

legislative counsel's digest

AB 1671, Caballero. Backflow protection and cross-connection controls: standards.

(1) Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health, including, but not limited to, conducting research, studies, and demonstration projects relating to the provision of a dependable, safe supply of drinking water, enforcing the federal Safe Drinking Water Act, adopting regulations, and conducting studies and investigations to assess the quality of private domestic water wells. Existing law makes certain violations of the act a misdemeanor.

Existing law requires any person who owns a public water system to ensure that the system does certain things, including, but not limited to, that it will not be subject to backflow under normal operating conditions. Existing law, to ensure that testing and maintenance of backflow prevention devices are performed by persons qualified to do testing and maintenance, authorizes local health officers to maintain programs for certification of backflow prevention device testers and requires the certification program to be consistent with backflow protection regulations adopted by the state board. A violation of these provisions, or an order by a local health officer pursuant to these provisions, is a misdemeanor.

This bill would require a public water system to implement a cross-connection control program that complies with, and would require the certification program to be consistent with, applicable regulations and the standards described in (2).

(2) Existing regulations establish standards for a backflow prevention device and cross-connection control.

This bill, on or before January 1, 2020, would require the state board to adopt standards for backflow protection and cross-connection control and would authorize the state board to do so through the adoption of a policy handbook, as specified. By authorizing the state board to adopt standards, the violation of which would be a crime, the bill would create a new crime and impose a state-mandated local program.

(3) The California Constitution requires the state to reimburse local agencies and school districts for certain costs mandated by the state. Statutory provisions establish procedures for making that reimbursement.

This bill would provide that no reimbursement is required by this act for a specified reason.

The people of the State of California do enact as follows:

SECTION 1. Section 116407 is added to the Health and Safety Code, to read:

116407. (a) On or before January 1, 2020, the state board shall adopt standards for backflow protection and cross-connection control.

(b) The state board may implement subdivision (a) through the adoption of a policy handbook that is not subject to the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The policy handbook shall include standards for backflow protection and cross-connection control. In developing the standards and any amendments to those standards, the state board shall consult with state and local agencies and other persons whom the state board has identified as having expertise in the subject of backflow protection and cross-connection control. The state board shall hold at least two public hearings before adopting the policy handbook. The policy handbook shall be posted on the board's Internet Web site.

(c) (1) Upon the effective date of a policy handbook adopted by the state board pursuant to subdivision (b), the regulations set forth in Article 1 (commencing with Section 7583) and Article 2 (commencing with Section 7601) of Group 4 of Subchapter 1 of Chapter 5 of Division 1 of Title 17 of the California Code of Regulations shall become inoperative, and, 90 days thereafter, are repealed, unless the state board makes a determination not to repeal a specific regulation.

(2) If the state board determines not to repeal a specific regulation pursuant to paragraph (1), the state board shall provide to the Office of Administrative Law and the Secretary of State written notice of its determination, including identification of the specific regulation that is not repealed. That regulation, upon the provision of that written notice to the Office of Administrative Law and the Secretary of State, shall become operative.

SEC. 2. Section 116555.5 is added to the Health and Safety Code, to read:

116555.5. A public water system shall implement a cross-connection control program that complies with applicable regulations and with standards adopted by the board pursuant to Section 116407.

SEC. 3. Section 116810 of the Health and Safety Code is amended to read:

116810. To ensure that testing and maintenance of backflow prevention devices are performed by persons qualified to do testing and maintenance,

local health officers may maintain programs for certification of backflow prevention device testers. The local health officer may suspend, revoke, or refuse to renew the certificate of a tester, if, after a hearing before the local health officer or his or her designee, the local health officer or his or her designee finds that the tester has practiced fraud or deception or has displayed gross negligence or misconduct in the performance of his or her duties as a certified backflow prevention device tester. The local health officer may collect fees from certified testers to offset the cost of the certification program provided pursuant to this section. The certification standards shall be consistent with standards adopted by the state board pursuant to Section 116407 and any other applicable backflow protection regulations.

SEC. 4. No reimbursement is required by this act pursuant to Section 6 of Article XIII B of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction, within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.

Assembly Bill No. 1180

CHAPTER 455

An act to amend Section 116407 of the Health and Safety Code, and to add Section 13521.2 to the Water Code, relating to water.

[Approved by Governor October 2, 2019. Filed with Secretary of State October 2, 2019.]

legislative counsel's digest

AB 1180, Friedman. Water: recycled water.

(1) Existing law, the California Safe Drinking Water Act, requires the State Water Resources Control Board to administer provisions relating to the regulation of drinking water to protect public health. Existing law requires, on or before January 1, 2020, the state board to adopt standards for backflow protection and cross-connection control through the adoption of a policy handbook, as specified.

This bill would require that handbook to include provisions for the use of a swivel or changeover device to supply potable water to a dual-plumbed system during an interruption in recycled water service.

(2) Existing law requires the state board to establish uniform statewide recycling criteria for each varying type of use of recycled water where the use involves the protection of public health.

This bill would require the state board, on or before January 1, 2023, as specified, to update the uniform statewide criteria for nonpotable recycled water uses.

The people of the State of California do enact as follows:

SECTION 1. The Legislature finds and declares all of the following:

(a) On December 11, 2018, the State Water Resources Control Board unanimously adopted an amendment to the policy for water quality control for recycled water, which included a goal to increase the use of recycled water in the state from 714,000 acre-feet per year in 2015 to 1,500,000 acre-feet per year by 2020 and 2,500,000 acre-feet per year by 2030.

(b) Section 13521 of the Water Code requires the state board to establish uniform statewide recycling criteria for each varying type of use of recycled water where the use involves the protection of public health.

(c) The regulations establishing the uniform statewide criteria for recycled water uses are set forth in Chapter 3 (commencing with Section 60301.050) of Division 4 of Title 22 of the California Code of Regulations. The regulations that pertain to nonpotable recycled water uses have not been updated since 2000.

(d) The regulations relating to backflow protection and cross-connection control for recycled water are set forth in Article 1 (commencing with Section 7583) and Article 2 (commencing with Section 7601) of Group 4 of Subchapter 1 of Chapter 5 of Division 1 of Title 17 of the California Code of Regulations. These regulations have not been updated since 1987.

(e) Section 1 of Chapter 533 of the Statutes of 2017 (Assembly Bill 1671 of the 2017–18 Regular Session) requires, on or before January 1, 2020, the state board to adopt backflow protection and cross-connection control standards and authorizes their implementation through a policy handbook.

(f) In order to maximize the amount of recycled water California can safely use for beneficial purposes, it is necessary to update the uniform statewide criteria for nonpotable recycled water uses and specify certain associated backflow protection and cross-connection control provisions.

SEC. 2. Section 116407 of the Health and Safety Code is amended to read:

116407. (a) On or before January 1, 2020, the state board shall adopt standards for backflow protection and cross-connection control.

(b) (1) The state board may implement subdivision (a) through the adoption of a policy handbook that is not subject to the requirements of Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code. The policy handbook shall include standards for backflow protection and cross-connection control. In developing the standards and any amendments to those standards, the state board shall consult with state and local agencies and other persons whom the state board has identified as having expertise in the subject of backflow protection and cross-connection control. The state board shall hold at least two public hearings before adopting the policy handbook. The policy handbook shall be posted on the board's internet website.

(2) (A) The policy handbook described in this subdivision shall include provisions for the use of a swivel or changeover device to supply potable water to a dual-plumbed system during an interruption in recycled water service.

(B) The use of a swivel or changeover device shall be consistent with any notification and backflow protection provisions contained in the policy handbook.

(c) (1) Upon the effective date of a policy handbook adopted by the state board pursuant to subdivision (b), the regulations set forth in Article 1 (commencing with Section 7583) and Article 2 (commencing with Section 7601) of Group 4 of Subchapter 1 of Chapter 5 of Division 1 of Title 17 of the California Code of Regulations shall become inoperative, and, 90 days thereafter, are repealed, unless the state board makes a determination not to repeal a specific regulation.

(2) If the state board determines not to repeal a specific regulation pursuant to paragraph (1), the state board shall provide to the Office of Administrative Law and the Secretary of State written notice of its determination, including identification of the specific regulation that is not repealed. That regulation, upon the provision of that written notice to the

Office of Administrative Law and the Secretary of State, shall become operative.

SEC. 3. Section 13521.2 is added to the Water Code, to read:

13521.2. (a) On or before January 1, 2023, the state board shall update the uniform statewide criteria for nonpotable recycled water uses established in Chapter 3 (commencing with Section 60301.050) of Division 4 of Title 22 of the California Code of Regulations. The deadline imposed by this section is mandatory only if the Legislature has appropriated sufficient funds, as determined by the executive director of the state board, in the annual Budget Act or otherwise to cover the state board's costs associated with the performance of the duties imposed by this section.

(b) For purposes of the update to the uniform statewide criteria for nonpotable recycled water uses described in subdivision (a), the state board shall adopt a regulation that incorporates by reference the criteria and applicable backflow protection provisions, including the provisions for the use of a swivel or changeover device for dual-plumbed systems, that are contained in the most recently adopted version of the policy handbook adopted pursuant to Section 116407 of the Health and Safety Code and any future versions of the policy handbook.

O

Appendix C

Municipal Code

Appendix D

High Hazard Premises

APPENDIX E

HIGH HAZARD CROSS-CONNECTION CONTROL PREMISES

The list below identifies premises that require backflow protection provided by an air gap or a reduced pressure principle backflow prevention assembly, unless noted otherwise. The list below is not intended to be all-inclusive. A PWS, State Water Board, or local health agency may require an AG, RP, or both to protect a PWS from other hazards not listed below and identified in premises through the hazard assessment completed in CCCPH Chapter 3, section 3.2.1. A PWS may reduce or increase the minimum protection required for a previously hazard-assessed user premise following a hazard reassessment as described in CCCPH Chapter 3, section 3.2.1.

1. Sewage handling facilities
2. Wastewater lift stations and pumping stations
3. Wastewater treatment processes, handling, or pumping equipment that is interconnected to a piping system connected to a PWS (+)
4. Petroleum processing or storage plants
5. Radioactive material storage, processing plants or nuclear reactors
6. Mortuaries
7. Cemeteries
8. Sites with an auxiliary water supply interconnected with PWS (+)
9. Sites with an auxiliary water supply not interconnected with PWS
10. Premises with more than one connection to the PWS (++++)
11. Recycled water (++)(+++)
12. Recycled water interconnected to piping system that contains water received from a PWS (+)
13. Graywater systems, as defined in California Water Code Section 14876, that are interconnected to a piping system that is connected to a PWS
14. Medical facilities
15. Kidney dialysis facilities
16. Dental office with water-connected equipment
17. Veterinarian facilities
18. Chemical plants
19. Laboratories
20. Biotech facilities
21. Electronics manufacture
22. Dry cleaner facilities
23. Industrial or commercial laundry facilities
24. Metal-plating facilities
25. Business park with a single meter serving multiple businesses
26. Marine-port facilities
27. Car wash facilities
28. Mobile home park, RV park, or campgrounds with RV hookups
29. Hotels/motels

30. Gas stations
31. Fire stations
32. Solid waste disposal facilities
33. Pet groomers
34. Agricultural premises
35. Hazard assessment access denied or restricted
36. Railroad maintenance facilities
37. Incarceration facilities (e.g., prisons)
38. Temporary connections to fire hydrants for miscellaneous uses, including construction
39. Private water distribution mains
40. Drinking water storage tank overflow connected to a sump or storm drain (+)
41. Airports

(+) Premise isolated by air gap only except as allowed through CCCPH Section 3.2.2(c)

(++) Dual-plumbed use areas established per CCR Title 22, Section 60313 through 60316 where recycled water is used for individually owned residential unit.

(+++) Residences using recycled water for landscape irrigation as part of an approved dual plumbed use area established pursuant to CCR Title 22, sections 60313 through 60316 shall use, at a minimum, a DC. If the water supplier is also the supplier of the recycled water, then the recycled water supplier may obtain approval of the local public water supplier or the State Water Board, to utilize an alternative backflow protection plan that includes an annual inspection of both the recycled water and potable water systems and an annual cross-connection test of the recycled water and potable water systems pursuant to subsection 60316(a) in lieu of any BPA.

(++++) All connections must receive at least the same level of protection excluding fire protection when connected to the PWS distribution system (e.g., if one connection requires an RP then all connections must have RPs installed).

Appendix E

Assessment Database

ORDINANCE NO. 2025-__

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF NEWPORT BEACH, CALIFORNIA, REPLACING IN ITS ENTIRETY CHAPTER 14.10 (CROSS-CONNECTION CONTROL PROGRAM) OF THE NEWPORT BEACH MUNICIPAL CODE TO COMPLY WITH STATE LAW

WHEREAS, Section 200 of the City Charter, of the City of Newport Beach ("City"), vests the City Council with the authority to make and enforce all laws, rules and regulations with respect to municipal affairs subject only to the restrictions and limitations contained in the City Charter and the State Constitution, and the power to exercise, or act pursuant to any and all rights, powers, and privileges or procedures granted or prescribed by any law of the State of California;

WHEREAS, the City's Utilities Department ("Department"), desires to replace Chapter 14.10 of the Newport Beach Municipal Code ("NBMC") relating to the Cross-Connection Control Program;

WHEREAS, on December 19, 2023, the California State Water Resources Control Board adopted standards for backflow protection and cross-connection control through the Cross-Connection Control Policy Handbook Standards and Principles for California's Public Water Systems ("CCCPH"), which became effective on July 1, 2024;

WHEREAS, all California public water systems must comply with the CCCPH, and this ordinance is necessary to bring the NBMC into conformity with applicable state regulatory requirements; and

WHEREAS, the City is dedicated to the protection of the potable water supply from contamination, pollution, cross-connection, and backflow.

NOW THEREFORE, the City Council of the City of Newport Beach ordains as follows:

Section 1: Chapter 14.10 (Cross-Connection Control Program) of the NBMC is hereby deleted in its entirety and replaced with the following:

Chapter 14.10
CROSS-CONNECTION CONTROL PLAN

Sections:

14.10.005 Purpose.

The City's major goal in adopting this chapter is to ensure the distribution of a safe and potable water supply to all domestic water users. The purpose of this chapter is to comply with state law and provide for a cross-connection control plan to:

A. Protect the public water supply against actual or potential cross-connection by isolating within the premises any contamination that may occur because of some undiscovered or unauthorized cross-connection on the premises;

B. Eliminate existing connections between drinking water systems and other sources of water that are not approved as safe and potable for human consumption;

C. Eliminate cross-connections between drinking water systems and sources of contamination; and

D. Prevent cross-connections in the future.

These regulations are adopted pursuant to the requirements set forth in the Cross-Connection Control Policy Handbook, as may be amended from time to time, which replaced State of California Administrative Code Title 17, Sections 7583 through 7605 and applies to all State of California Public Water Systems, as defined in California's Health and Safety Code Section 116275(h).

14.10.010 Definitions.

Unless the context clearly requires otherwise, the definitions and provisions set forth in this section shall govern the construction, interpretation, and application of words and phrases used in this chapter.

"Cross-Connection Control Management Plan" or "CCCMP" means the City of Newport Beach Cross-Connection Control Management Plan adopted by the City pursuant to Section 14.10.015.

"Cross-Connection Control Policy Handbook" or "CCCPH" means State Water Resources Control Board Cross-Connection Control Policy Handbook adopted December 19, 2023, as may be amended from time to time.

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

"Water user" means a person who is authorized by the City to receiver water.

14.10.015 Adoption of the Cross-Connection Control Management Plan.

The City Council authorizes the City Manager or Utilities Director to adopt, implement and amend the CCCMP to comply with the CCCPH. A copy of the CCCPH and CCCMP shall be kept on file in the City Clerk's Office and made available for public inspection.

If the provisions of the CCCPH pertaining to the type of backflow and cross-connection devices required to be installed for a given degree of hazard, or mandate are different or have a more stringent requirement for a given degree of hazard, then such provisions of the CCCPH that pertain thereto shall apply.

14.10.020 Cross-Connection Protection Requirements.

The City shall review all development, and redevelopment plans and all requests for new services to determine if backflow protection is needed. Plans and specifications must be submitted to the Community Development Department of the City for review of possible cross-connection hazards as a condition for new service connections and, upon request, for the continuation of existing service. If it is determined that a backflow prevention device is necessary to protect the public water system, the required device must be installed in compliance with Section 14.10.025 before service will be granted or, as set forth herein, existing service is allowed to be continued.

A. Where Protection is Required.

1. Each service connection from the City 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 Utilities Director and approved by the Utilities Director in writing.

2. Each service connection from the City water system 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.

3. Backflow prevention devices shall be installed on the service connection to any premises:

   a. that has internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the Board and the Utilities Director;

   b. that has intricate plumbing or piping arrangements that make it impracticable or impossible to ascertain whether cross-connections exist; or

   c. where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether cross-connections exist.

B. Type of Protection Required.

1. The type of protection to be provided to prevent backflow into the approved water supply shall be commensurate with the degree of hazard that exists on the premises. The minimum types of backflow required to safeguard the water supply at the water user's connection to a premises are provided for in the CCCMP. Situations which are not covered in the CCCMP shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the Utilities Director.

2. Two or more services supplying water from different street mains to the same building, structure or premises through which a multidirectional water flow may occur shall have adequate approved backflow protection devices necessary to protect the City's mains from pollution or contamination.

14.10.025 Backflow Prevention Devices.

A. Approved Backflow Prevention Devices. For water users connected to the City's potable water system only backflow prevention devices, which have been specified in the CCCMP and approved by the Utilities Director shall be acceptable for installation. Backflow prevention devices shall be installed in the manner specified in the CCCMP.

B. Backflow Prevention Device Testing and Maintenance. The water users of any premises on which backflow prevention devices are installed shall have the devices tested by a person who is a certified backflow prevention assembly tester in accordance with the CCCMP. Backflow prevention devices must be tested at least annually and after installation, relocation, repair or replacement. No device shall be placed back in service unless it is functioning as required. A report in a form acceptable to the Utilities Director shall be filed with the Utilities Department each time a device is installed, tested, relocated, repaired or replaced. These devices shall be serviced, overhauled or replaced whenever they are found to be defective, and all costs of testing, repair and maintenance shall be borne by the water user.

C. Backflow Prevention Device Removal. Approval must be obtained from the Utilities Director before a backflow prevention device is removed, relocated, repaired, or replaced.

1. Removal. The use of a device may be discontinued and the device removed from service upon presentation of sufficient evidence to the Utilities Director to verify that a hazard no longer exists or is not likely to be created in the future.

2. Relocation. A device may be relocated following confirmation by the Utilities Director that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the device.

3. Repair. A device may be removed for repair, provided the water use is either discontinued until repair is completed and the device is returned to service, or the service connection is equipped with other backflow protection approved by the Utilities Director. A retest will be required following the repair of the device.

4. Replacement. A device may be removed and replaced provided the water use is discontinued until the replacement device is installed. All replacement

devices must be approved by the Utilities Director and must be commensurate with the degree of hazard involved.

14.10.030 Administrative Procedures.

A. Inspection by the City. The Utilities Director may require an on-premises inspection to evaluate cross-connection hazards. The City will transmit a written mailed notice requesting an inspection appointment for each affected water user.

B. Customer Notification—Corrective Actions. The City will notify the water user with a mailed notice of the inspection findings, listing corrective action to be taken, if required. The water user shall take the corrective action required including installation of backflow prevention devices by the following deadline, determined by the Utilities Director based on the hazard severity:

1. A period of sixty (60) days;

2. As specified in the CCCMP; or

3. As specified by the Director, at the Director's discretion.

C. Customer Notification—Testing and Maintenance.

1. Each affected water user is required to annually test and certify their backflow prevention device installed on their service connection in accordance with the CCCMP. The Utilities Department will mail a written reminder notice thirty (30) days before the annual certification is due. This notice will inform the water user that the device needs to be tested, and that the City's required form must be completed and returned.

2. If no action is taken by the water user, the Utilities Director may terminate water service to the affected water user in accordance with Section 14.10.040 until the subject device is tested and approved.

14.10.035 Water Service Termination.

A. General. If a water user fails to take corrective action, neglects to test and certify their backflow prevention device as required by Section 14.10.030 or presents a clear and immediate hazard to the potable water supply that cannot be immediately abated, the Utilities Director will initiate procedures to discontinue water service.

B. Basis for Termination. Conditions on water use that create a basis for water service termination shall include the following:

1. Refusal to install a required backflow prevention device;

2. Refusal to test a backflow prevention device;

3. Refusal to repair a faulty backflow prevention device;

4. Refusal to replace a faulty backflow prevention device;

5. Direct or indirect connection between the public water system and a sewer line;

6. Unprotected direct or indirect connection between the public water system and a system or equipment containing contaminants;

7. Unprotected direct or indirect connection between the public water system and an auxiliary water system; or

8. A situation which presents an immediate health hazard to the public water system.

C. Water Service Termination Procedures.

1. For conditions 1, 2, 3 or 4 of subsection (B) of this section, the Utilities Director is authorized to terminate service to a water user's premises after two written mailed notices have been sent specifying the corrective action needed and the time period in which it must be done. If no action is taken within the allowed time period and no appeal is filed in accordance with Section 14.10.045 (Appeals), the water service may be terminated.

2. For conditions 5, 6, 7 or 8 of subsection (B) of this section, the Utilities Director shall make a reasonable effort through a door tag and onsite visit to advise the water users that, because of the potential harm to the public, the City is terminating the water service immediately and locking the service valve. The decision of the Utilities Director pursuant to this subsection (C) (2), may be appealed in accordance with Section 14.10.045; however, the water service shall not be reestablished while the appeal is pending.

3. The City shall restore the water service if the City Manager grants the appeal pursuant to Section 14.10.045, or if the water user takes action to remediate the condition and the Utilities Director approves the corrective action.

14.10.040 Violations.

It is unlawful for any person to violate any provision set forth in this chapter or for any person 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 Utilities Department or 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 City and/or the service of water pipes or fixtures of any consumer of the City.

14.10.045 Appeals.

Except for decision by the City's Utilities Director to adopt, implement and amend the CCCMP, as provided for in section 14.10.015, any decision or action of the Utilities Director shall be final fourteen (14) days after notice is provided to the water user in the manner provided in Section 1.08.080, unless the water user files an appeal within that time frame. Any appeal shall be submitted to the City Manager on a form approved by the City Manager along with the appeal fee set by resolution of the City Council. If appealed, the City Manager shall review the appeal and issue a written decision upholding, overturning or modifying the decision of the Utilities Director within thirty (30) days. The decision of the City Manager shall be final.

Section 2: The recitals provided in this ordinance are true and correct and are incorporated into the substantive portion of this ordinance.

Section 3: If any section, subsection, sentence, clause or phrase of this ordinance is for any reason held to be invalid or unconstitutional, such decision shall not affect the validity or constitutionality of the remaining portions of this ordinance. The City Council hereby declares that it would have passed this ordinance and each section, subsection, sentence, clause or phrase hereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses or phrases be declared invalid or unconstitutional.

Section 4: The City Council finds the introduction and adoption of this ordinance is not subject to the California Environmental Quality Act ("CEQA") pursuant to Sections 15060(c)(2) (the activity will not result in a direct or reasonably foreseeable

indirect physical change in the environment) and 15060(c)(3) (the activity is not a project as defined in Section 15378) of the CEQA Guidelines, California Code of Regulations, Title 14, Division 6, Chapter 3, because it has no potential for resulting in physical change to the environment, directly or indirectly. Alternatively, the City Council finds the approval of this ordinance is not a project under CEQA Regulation Section 15061(b)(3) because it has no potential for causing a significant effect on the environment.

Section 5: Except as expressly modified in this ordinance, all other sections, subsections, terms, clauses and phrases set forth in the Newport Beach Municipal Code shall remain unchanged and shall be in full force and effect.

Section 6: The Mayor shall sign and the City Clerk shall attest to the passage of this ordinance. The City Clerk shall cause the ordinance, or a summary thereof, to be published pursuant to City Charter Section 414. This ordinance shall be effective thirty (30) calendar days after its adoption.

This ordinance was introduced at a regular meeting of the City Council of the City of Newport Beach held on the 22nd day of July, 2025, and adopted on the 26th day of August, 2025, by the following vote, to-wit:

AYES: _____

NAYS: _____

ABSENT: _____

_____
Joe Stapleton,
Mayor

ATTEST:

_____
Molly Perry,
Interim City Clerk

APPROVED AS TO FORM:
CITY ATTORNEY'S OFFICE

_____
Aaron C. Harp,
City Attorney

Appendix F

Site Assessment Form
(Commercial/Industrial Assessments)

Appendix G

Backflow Prevention Assembly Diagrams

Diagram 1

Double check detector backflow prevention assembly

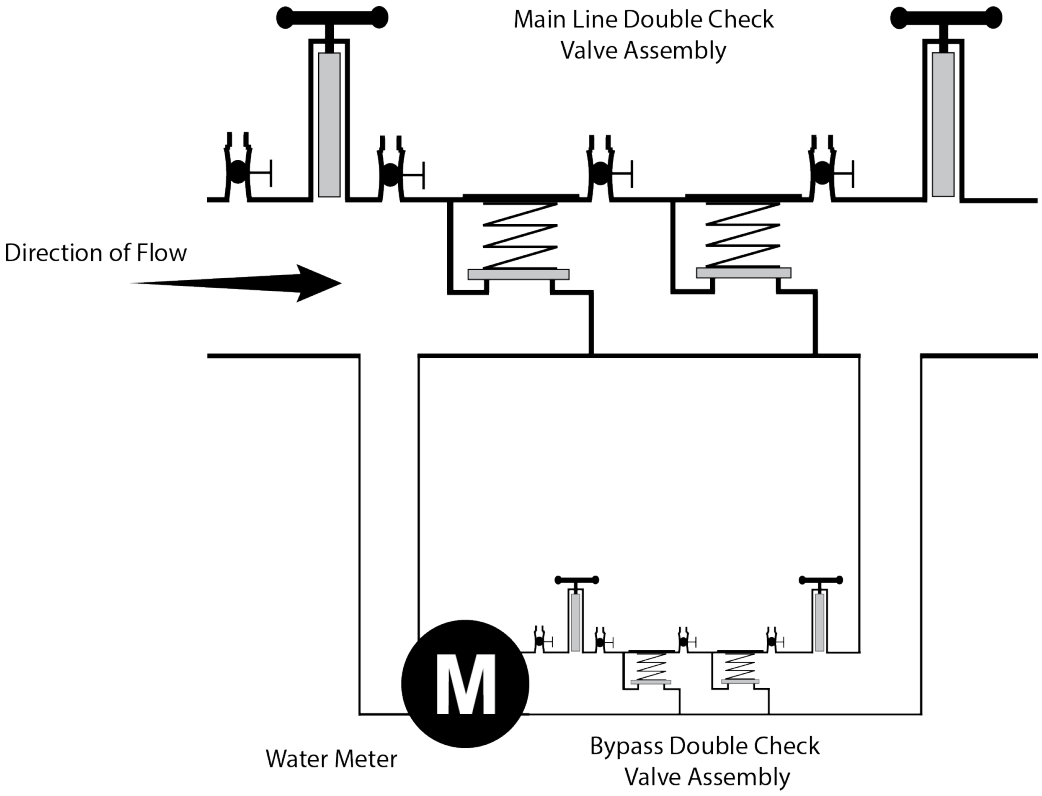


Diagram 2

Double check detector backflow prevention assembly – type II

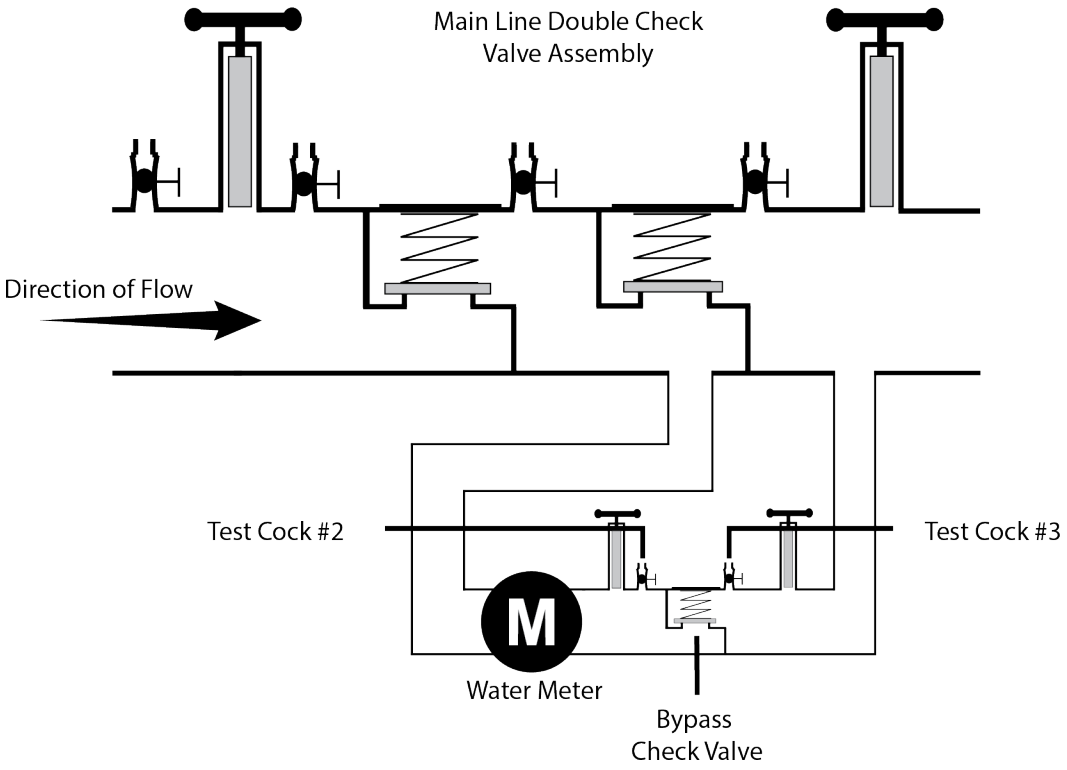


Diagram 3

Double check valve backflow prevention assembly

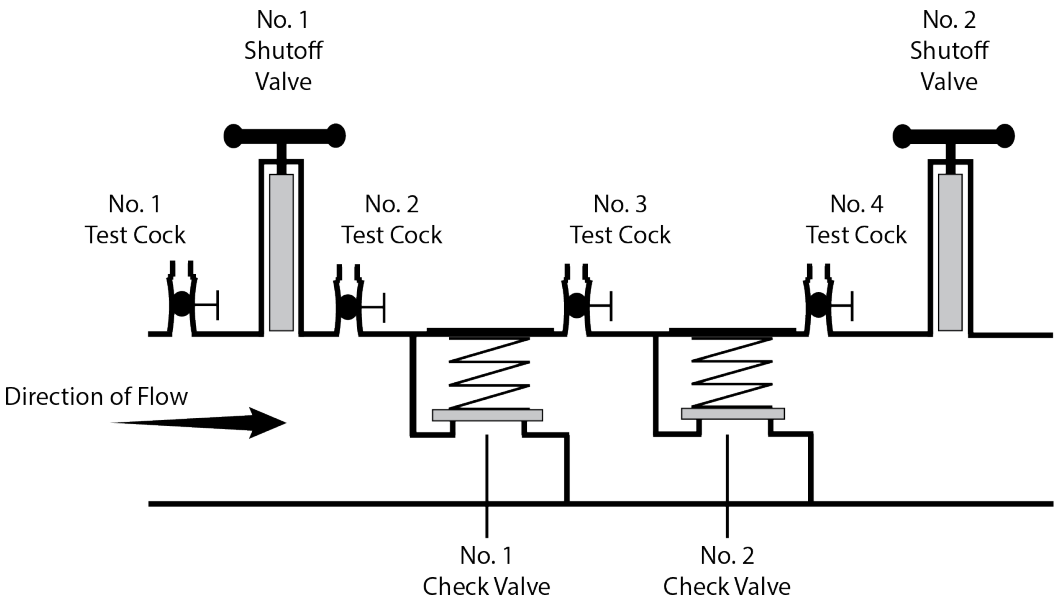


Diagram 4

Pressure vacuum breaker backsiphonage prevention assembly

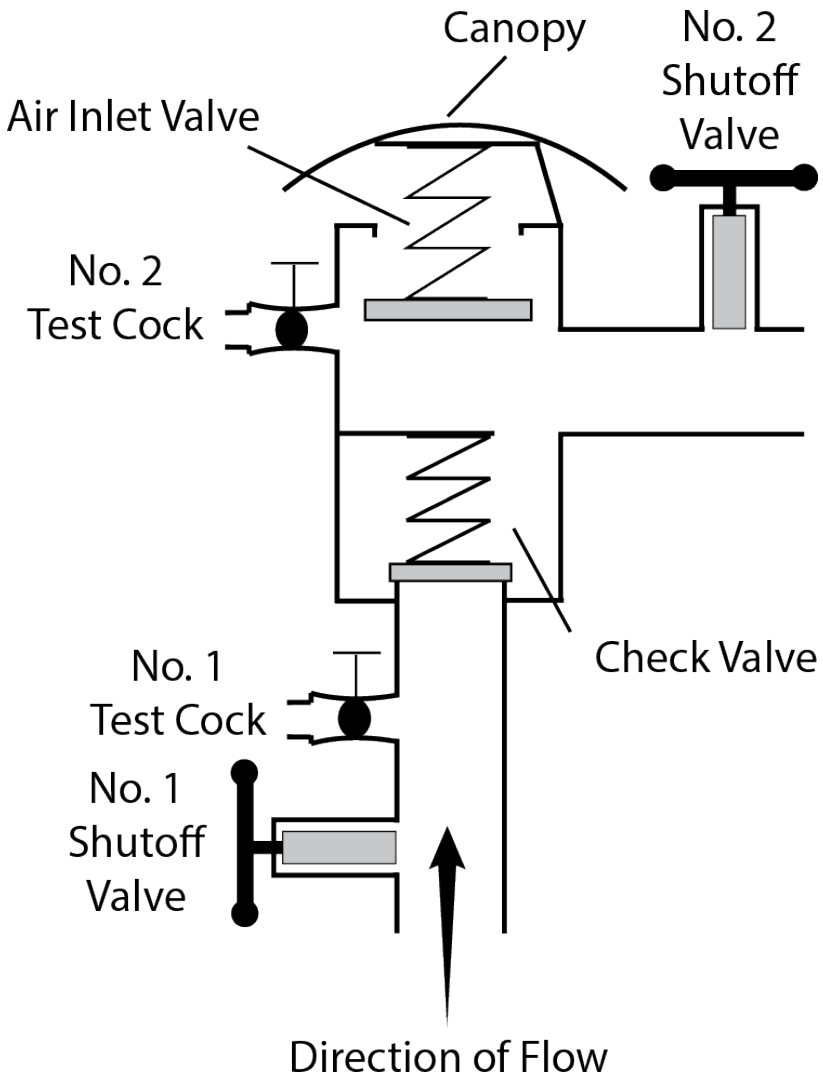


Diagram 5

Reduced pressure principle backflow prevention assembly

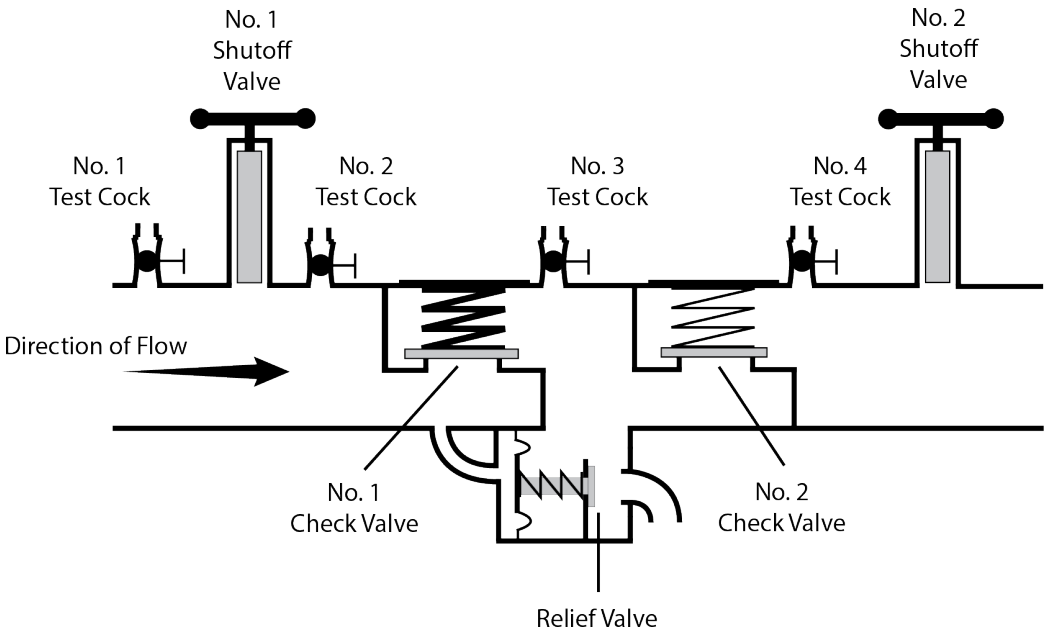


Diagram 6

Reduced pressure principle detector backflow prevention assembly

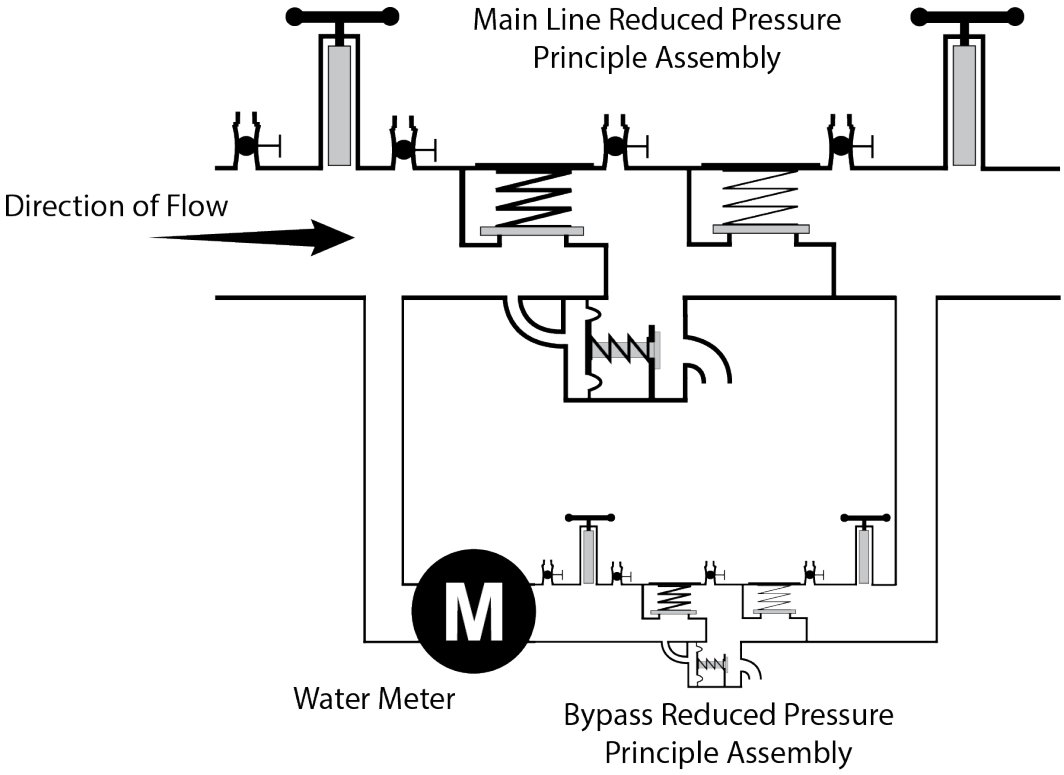


Diagram 7

Reduced pressure principle detector backflow prevention assembly – Type II

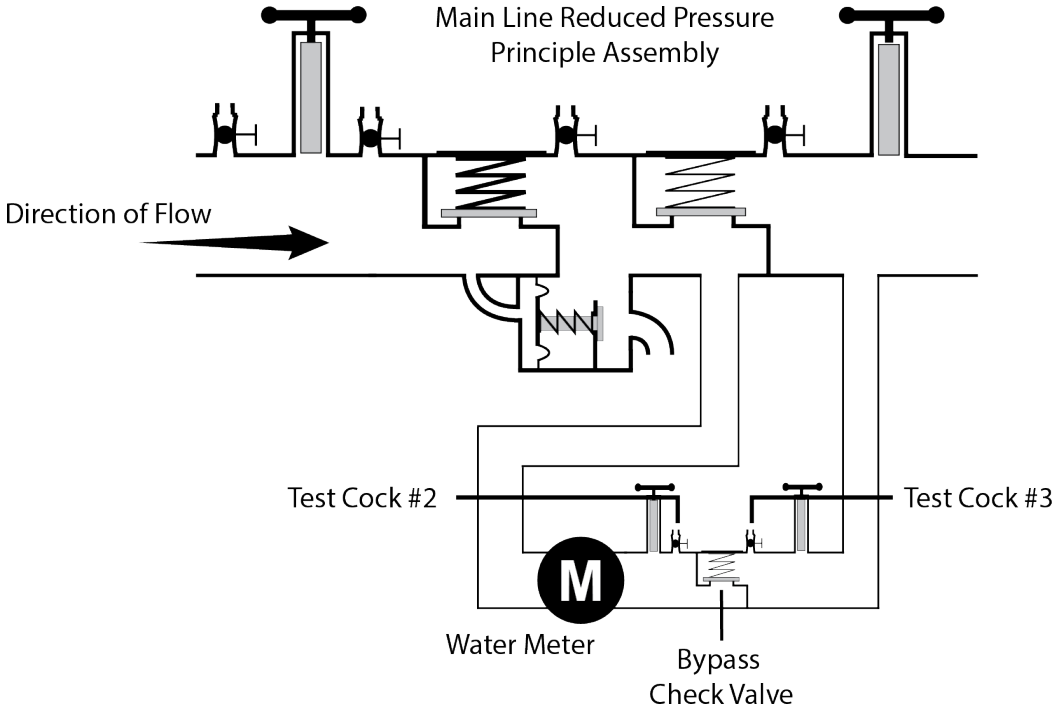
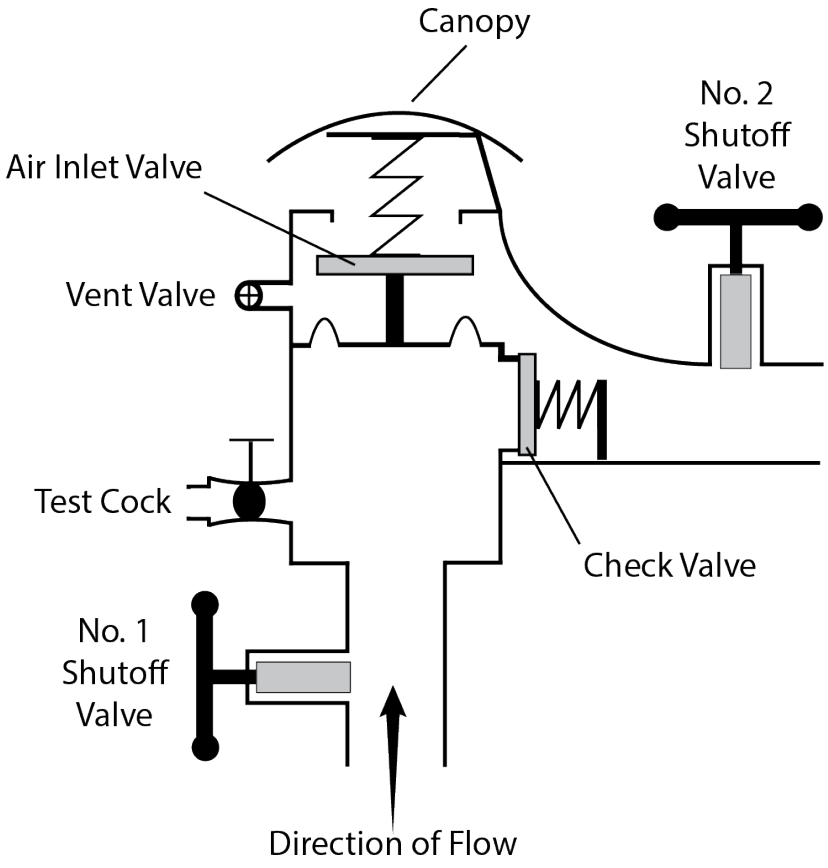


Diagram 8

Spill-resistant pressure vacuum breaker backsiphonage prevention assembly



Swivel-Ell Design and Construction Criteria

The criteria below, in conjunction with the swivel-ell diagrams that follow (Diagrams A and B), are **minimum** acceptable design and construction-related requirements for utilizing a swivel-ell. For restrictions and allowances for utilizing a swivel-ell, see CCCPH section 3.2.2.

A. Prior to operation of a swivel-ell, the PWS will receive approval for the design and construction plans of that swivel-ell from the State Water Board.

B. The drinking water supply must not, under any circumstances, be directly connected to the recycled water supply, nor be designed such that the recycled water use site could be supplied concurrently by a recycled water supply and a drinking water supply.

C. The drinking water supply line and the recycled water supply line must be offset (see Diagram 9b) 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 recycled water use site being supplied concurrently by recycled water and drinking water.

D. The recycled water supply line used in conjunction with the swivel-ell must be the only recycled water supply to the recycled water use area.

E. The swivel-ell must be located as close as practical to the public water system service connection, with the swivel-ell connection being located as close as practical to the RP upstream of the swivel-ell.

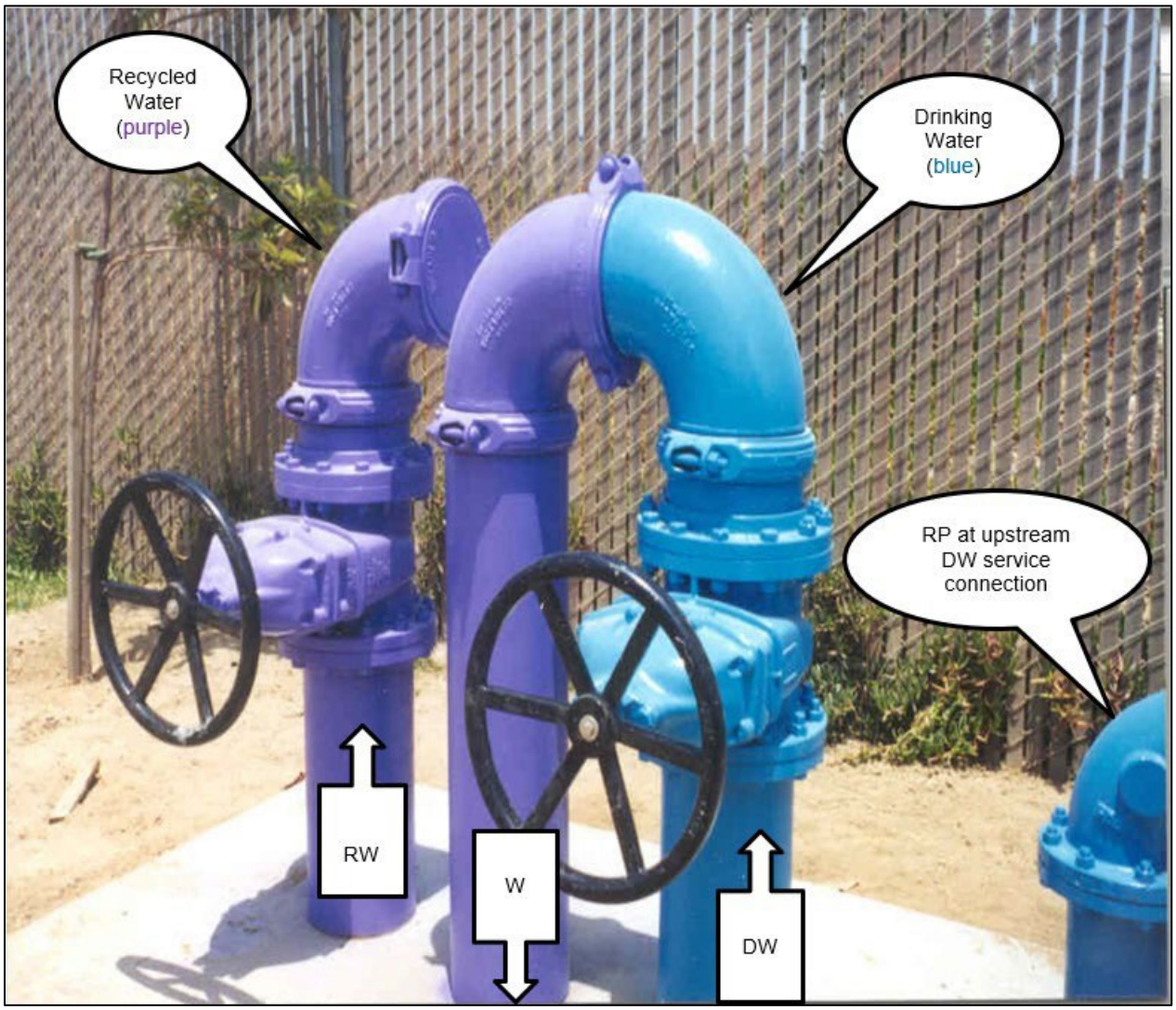
F. The swivel-ell must:

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 State Water Board;
4. be provided the security necessary to prevent interconnections, vandalism, unauthorized entry, etc.; and
5. be provided with meters on both the recycled water service and drinking water service connections.

Legend for Diagram 9a and 9b (also see next page)

RP = Reduced pressure principle backflow prevention assembly
RW = Tertiary-treated recycled water originating from wastewater treatment facility
DW = Drinking water originating from a public water system
W = Water (tertiary recycled water **or** drinking water) to use site. As pictured, configured for supplemental drinking water to the use site.
M = Meter (*next page*)
PE = Plain End (*next page*)
GRV = Groove (*next page*)
PWS = Public Water System (*next page*)

Diagram A: Example Swivel-Ell Pictorial (also see Plan View Schematics)

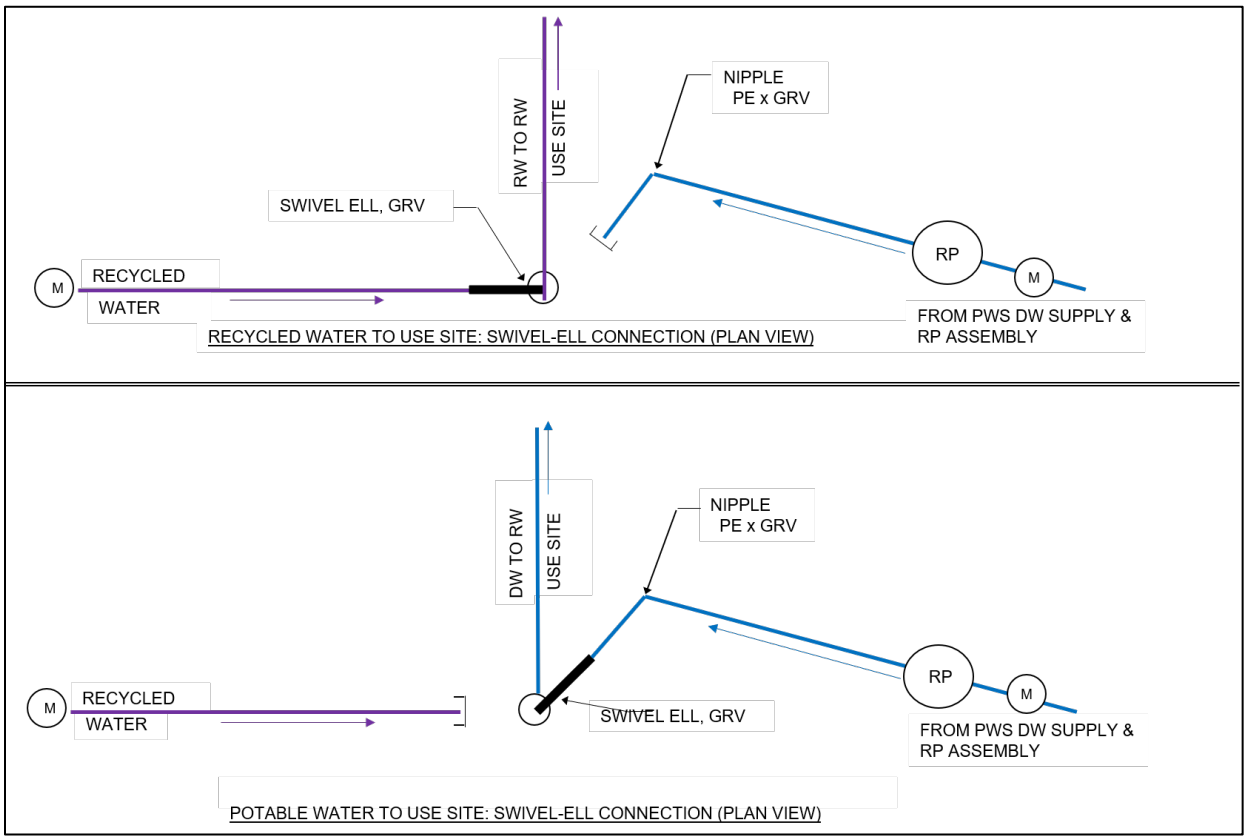


Note: The RP, a required component of an acceptable swivel-ell, is not shown in the picture.

Diagram B

Swivel-Ell Typical Plan View Schematics

(not intended to be an exact portrayal of the pictorial)



Appendix H

Cross-Connection Incident Response Form

City of Newport Beach Cross-Connection Incident Report Form

CALL DETAILS

1. Caller Name: _____ Phone number: _____

2. Call Date: _____ Time: _____

3. Location address: _____ _____ _____

Street Number Street Name City

4. Name of ownership/business: _____

ISSUE DESCRIBED BY CALLER

5. Estimated start date & time: _____

6. Description of issue:

7. Name of City Inspector: _____

ON SITE DETAILS

8. Site conditions: (Check all that apply)

- ☐ Meter Protection
  - Last Test Date: _____
  - ☐ Pass
  - ☐ Fail
- ☐ Dual Plumbed Bldg.
- ☐ Kitchen/Cafeteria
- ☐ Recycled Water Onsite
- ☐ Designated Industrial Line
- ☐ Cooling Tower
- ☐ Chemical Pumps/ Motors
- ☐ Laboratory
- ☐ Multi-Tenant

Notes:

9. Number of persons in the building: _____

10. OCHCA Notified?:

☐ Yes If Yes

☐ No Name: _____

(714) 955-3963 or Date: _____ Time of Notice: _____

WQOnCall@ochca.com

Appendix I

Standard Specifications and/or Standard Drawings

Standard Specifications
and/or Standard Drawings can be revised at:
https://www.newportbeachca.gov/government/departments/public-works/resources/standard-drawings