2025

# Cross Connection Control Management Plan

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 District 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 **Appendix A**. In addition, by providing basic educational information on backflow prevention, the District intends to build a foundation of awareness within the District regarding the importance of backflow protection and cross connection control, further enhancing the District's long standing cross connection control program.

The District will implement the requirements of the State CCCPH by implementing Administrative Code Section 12000, which incorporates by reference the procedures 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 District's CCCMP has been developed in conformance to the State CCCPH and is applicable to all customers within the District'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 District.

## 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. 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, as detailed in **Appendix B**.

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).

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. The State CCCPH updates those regulations, which 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 CCCMP, 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 |
| 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 |
| District | El Toro Water District |
| 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 opening, as defined in section 207.0 of the California Plumbing Code, between the free-flowing discharge end of a potable water supply pipeline and the flood level of an open or non-pressurized receiving vessel, and in no case less than 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,

"**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.

"**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.

"**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.

"**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 **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.

"**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.

"**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.

"**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.

"**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.

"**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 the CCCMP.

"**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 District 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 District's water distribution system the District 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; or
    8. the requirements and information provided in the State CCCPH, and the District's CCCMP.

b. Each hazard assessment must identify the degree of hazard to the District'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 **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 District describes their review of these assessments in the District's CCCMP.

e. Subsequent to the initial hazard assessment described in subsection (a), the District 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 District'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 District's CCCMP required pursuant to State CCCPH section 3.1.4.; the District will determine the need for periodic assessments after Phase 3 has been completed;
6. if the State Water Board requests a hazard assessment of a user's premises; or
7. if the District 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 District'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 District's water distribution system for potential cross connection the District will undertake assessments in the following phases. As part of the hazard assessment process the District has created a tracking system for the assessments made under the CCCMP. See **Appendix E**. Data will be gathered and logged into the assessment database in three phases. The assessment database will be included in the District's Records Retention Policy, see **Appendix H**.

- 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 – Residential connections without backflow prevention assemblies at the meter connection

### 2.2.1 Phase 1 - Connections with Backflow Protection

For sites with backflow protection, the District has entered each address into the assessment tracking system indicating what type of BPA has been installed. The District's Cross Connection Control Specialist has reviewed 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 has been noted in the export of the assessment database saved on the District's server. The District has completed this phase of the assessments prior to the adoption of the District's CCCMP.

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

For those commercial/industrial connections without an approved BPA, the District will provide a self-reporting letter to provide information regarding onsite conditions which would necessitate the installation of an approved BPA at the meter connection. Refer to **Appendix F** for the Self Report Letter. The self-reporting letters could be distributed via direct mail or e-mail.

The self-reporting letters would be reviewed based on the available Cross Connection Control Specialist hours to review and process commercial/industrial self-reporting letters. It is assumed that the District's Cross Connection Control Specialist can process five self-reporting letters per available hour, and the total number of annual Cross Connection Control Specialist available hours is 85 hrs./yr (5% of total annual 1,692 hrs.) for a total of 425 self-reporting letters per year . Therefore, the District will distribute up to 425 self-reporting letters per year until all commercial/industrial connections without an approved BPA have been assessed.

- If the Cross Connection Control Specialist determines that based on the self-reporting letter 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 self-reporting letter 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.

As of May 20, 2025, the District has 991 commercial/industrial connections without backflow protection. Therefore, the District has determined that the self-reporting letters will be mailed to customers within 3 years from adoption of the District's CCCMP.

### 2.2.3 Phase 3 – Residential Connections without Backflow Protection

For those residential connections without an AMI/AMR meter at the water connection the District will assess each site by means of office-based tools such as:

- Reviewing sites via Google Maps or other aerial photography software
- Reviewing tract maps to review blocks of residential customers 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 Specialist hours to review the office-based databases and/or files.

- If the Cross Connection Control 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 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.

As of May 20, 2025, the District has 7,912 residential connections without backflow protection. It is assumed that the District's Cross Connection Control Specialist can process six desktop surveys per available hour, and the total number of annual Cross Connection Control Specialist available hours is 85 hrs./yr (5% of total annual 1,692 hrs.) for a total of 510 desktop surveys per year. The District assumes approximately 1,000 residential meter surveys will require additional field investigation, which will take approximately one hour each to complete. The District has determined that this phase of the assessments can be completed within 31 years from the adoption of the District's CCCMP.

# 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 District must have operating rules, ordinances, by-laws, or a resolution to implement the cross connection program. The District must have legal authority to implement corrective actions in the event a water user fails to comply in a timely manner with the District's provisions regarding the installation, inspection, field testing, or maintenance of BPAs required pursuant to this Section. Such corrective actions must include the District'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 District's cross connection control program.

The District's Administrative Code, Section 12000 incorporates this CCCMP by reference. A copy is attached as **Appendix C**.

# 4 Backflow Prevention

In accordance with the State CCCPH, Section 3.1.3 (a)(4) and Section 3.2.2 – the District 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.

## 4.1 Backflow Prevention Requirements

(a) The District 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 the District's Cross Connection Control Specialist deems appropriate. When an RP is required or referenced in the State CCCPH, an RPDA or RPDA-II type of assembly may be substituted if the District's Cross Connection Control Specialist deems 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 District must, at all times, protect its distribution system from high hazard cross connections (see **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 District 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 District 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 District 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**;**
(4) at least every 12 months, inspections are performed and documented to confirm ongoing compliance with the design and construction-related requirements in CCCMP**;**
(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 District 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 District be present to supervise each switchover; and
(C) within seven days of each switchover, if requested by the State Water Board, the District 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 District must ensure its distribution system is protected with no less than DC protection for a user premises with a fire protection system.

(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) 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 District;
(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.

(3) For residential premises where a BPA is installed and the service complies with CCCMP Section 4.1(e)(2)(A) through (E), the District may allow the BPA to remain in place without requiring ongoing field testing.

(f) The State Water Board and the District 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 District of changes in piping, and maintain current contact information on file with the District; and;
(2) The District 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 1047-2021for 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 District requires that BPA testers notify the District if a water user or District-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 District;
(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 District;
(3) the District 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 District 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 District 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 District. If internal protection is provided in lieu of premises containment, the District 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 District's Standard Specification and/or drawings for each type of BPA is contained in **Appendix G.**

### 4.2.3 Removal, Relocation, Repair, and Replacement of BPAs

Approval must be obtained from the District before a BPA is removed, relocated, repaired, or replaced.

(a) Removal: A BPA may be removed from service only upon approval from the District, supported by sufficient evidence confirming that a cross connection hazard no longer exists or is unlikely to be created in the future. The District may require a hazard reassessment as described in CCCMP Section 3.2.1.

(b) Relocation: A BPA may be relocated only after the District confirms that the new location provides equal or greater protection, complies with CCCMP Section 4.2.2, and maintains accessibility for testing and maintenance. A retest is required after relocation.

(c) Repair: A BPA may be temporarily removed for repair if the water use is suspended during repair, or if temporary backflow protection acceptable to the District is installed. The BPA must be retested and pass before being placed back into service.

(d) Replacement: A BPA may be removed and replaced if the water service is suspended during replacement. Replacement assemblies must be approved by the District and must match or exceed the level of protection required based on the current hazard assessment. All replacements must be documented per CCCMP Section 9.

# 5 Non-Testable Devices

## 5.1 Non-testable backflow preventer testing procedures

There are non-testable backflow preventer devices under the District ownership or administration. Hose-bibb vacuum breakers are an example of the most common types of non-testable backflow prevention devices for the District. Reservoir and pump station sites are checked twice weekly; the WRP is checked daily from Monday through Friday.

*Table 5 -1 Non-Testable Devices*

| Location | Air Gap | Atmospheric Vacuum Breaker | Hose-Bibb Vacuum Breaker | Dual Check Valve | Identification Potential Onsite Hazard |
|---|---|---|---|---|---|
| **R-1/R-2** | No | No | Yes | No | Sodium Hypochlorite Ammonium Hydroxide |
| **R-3** | No | No | No | No | Sodium Hypochlorite Ammonium Hydroxide |
| **R-4** | No | No | No | No | Sodium Hypochlorite Ammonium Hydroxide |
| **R-5** | No | No | No | No | Sodium Hypochlorite Ammonium Hydroxide |
| **R-6** | No | No | No | No | Sodium Hypochlorite Ammonium Hydroxide |
| **Cherry P.S.** | No | No | No | No | |
| **Shenandoah P.S.** | No | Yes | No | No | |
| **Spartan P.S.** | No | No | No | No | |
| **Main P.R.** | No | No | Yes | No | |
| **Alscot P.S.** | No | No | No | No | |
| **4920 L.S.** | No | No | No | No | |
| **Aliso L.S.** | No | No | No | No | |
| **Freeway L.S.** | No | No | No | No | |
| **La Paz L.S.** | No | No | No | No | |
| **Oso L.S.** | No | No | No | No | |
| **Northline L.S.** | No | No | No | No | |
| **Veeh L.S.** | No | No | No | No | |
| **Westline L.S.** | No | No | No | No | |
| **WRP** | Yes | No | Yes | No | |
| **Main Office** | No | No | Yes | No | |

# 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 District must ensure that each BPA required by the CCCMP to protect the District'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 District 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 BPAs in the District's service area. Certifications from any other entity will be considered invalid.

### 6.1.1 Backflow Tester List

Backflow testers must provide evidence of certification from a State Water Board recognized certifying organization and documents will be verified by the District's Cross Connection Specialist.

- A database of approved testers can be downloaded from the American Water Works Association website at https://www.ca-nv-awwa.org/
- The District requires that all backflow testers use annually calibrated test equipment for backflow testing within the District's service area.

## 6.2 Cross Connection Control Specialist Certification

All Cross Connection Control Specialists, used by the District 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.

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 District has one employee on staff who is certified by a State Water Board recognized certifying organization as Cross Connection Control Specialists. The staff is listed in **Table 6-1** below.

*Table 6 -1 Certified Cross Connection Control Specialists*

| Name | Agency | Address | Phone No. | E-mail Address | Certification No. | Certification Expiration Date |
|---|---|---|---|---|---|---|
| **Steve Wingen** | ETWD | 24251 Los Alisos Blvd Lake Forest, CA 92630 | (949) 837-7050 x209 | swingen@etwd.com | 02645 | 03/31/2027 |

# 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 District 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 as indicated in the following sections.

## 7.1 Backflow Incident Response Procedure

In the event that a suspected backflow incident occurs in the District, the District'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 District will issue a Tier 1 public notification pursuant to CCR, Title 22, Section 64463.1.

(b) If required by the State Water Board, the District 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 District in response to the backflow incident, and the follow up actions to prevent future backflow incidents. The written report form is in **Appendix I.**

# 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 District 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 District's water system includes 9,962 domestic water connections. Therefore, the District must have a Cross Connection Control Program Coordinator, and the Coordinator must be a certified Cross Connection Control Specialist with certification from a State Water Board recognized training operation.

The District's Cross Connection Control Program Coordinator is:

Steven P. Wingen
El Toro Water District
24251 Los Alisos Blvd
Lake Forest, CA 92630
(949) 837-7050 x209
swingen@etwd.com
Certification Number: 02645
Certifying Entity: CA/NV AWWA
Expiration Date: 03/31/2027

The District's Cross Connection Control Program Specialist is:

Steven P. Wingen
El Toro Water District
24251 Los Alisos Blvd
Lake Forest, CA 92630
(949) 837-7050 x209
swingen@etwd.com
Certification Number: 02645
Certifying Entity: CA/NV AWWA
Expiration Date: 03/31/2027

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

The District'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 District's Cross Connection Control Specialist is unavailable due to vacation, sickness, or other reason, the duties of the Cross Connection Control Specialist will be carried out by the District's primary on-call operator. The contact phone number for the primary on-call operator is (949) 290-4243. In the event the District's primary on-call operator cannot be reached, the secondary on-call operator will respond within 30 minutes.

# 9 Recordkeeping

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

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

This recordkeeping system complies with the State CCCPH Section 3.5.1, and the District's written Retention Policy included in **Appendix H.**

## 9.1 Records Retained

The District 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 District 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 District has a written Records Retention Policy which is contained in **Appendix H.** The procedures are generally described below:

### 9.2.1 Phase 1 Site Assessments

Assessments on sites with meter protection in accordance with Section 2 generate an electronic assessment document saved as a PDF, reviewed, and electronically signed by the Cross Connection Control Specialist.

- An electronic copy will be filed on the District's shared drive at this address: S:\Engineering\Cross Connection\Hazard Assessments\Phase 1
- The Cross Connection Control Specialist will be responsible for the filing. Refer to Section 8 for contact information.
- The surveys will be filed permanently.
- Assessment data will be stored by service ID.

### 9.2.2 Phase 2 Site Assessments

Assessments on industrial/commercial sites without meter protection in accordance with Section 2 generate an electronic assessment document saved as a PDF, reviewed, and electronically signed by the Cross Connection Control Specialist.

- An electronic copy will be filed on the District's shared drive at this address: S:\Engineering\Cross Connection\Hazard Assessments\Phase 2
- The Cross Connection Control Specialist will be responsible for the filing. Refer to Section 8 for contact information.
- The surveys will be filed permanently.
- Assessment data will be stored by service ID.
- If action is required -
    - Notification generated by Cross Connection Control Specialist that a backflow is required.
    - Notification mailed to residential customer.
    - Specialist follows up in 30 days to verify that backflow has been installed.
    - Action noted in residential assessment database.
    - Action noted by Cross Connection Control Specialist. Refer to Section 8 for

contact information.

### 9.2.3 Phase 3 Site Assessments

Residential assessments conducted in accordance with Section 2 will populate data into an excel file. The completed excel file will be saved as a PDF and electronically signed by the Cross Connection Control Specialist.

- An electronic copy will be filed on the District's shared drive at this address: S:\Engineering\Cross Connection\Hazard Assessments\Phase 3
- The Cross Connection Control Specialist will be responsible for the filing. Refer to Section 8 for contact information.
- The surveys will be filed permanently.
- Assessment data will be stored by service ID.
- If action is required -
    - Notification generated by Cross Connection Control Specialist that a backflow is required.
    - Notification mailed to residential customer.
    - Specialist follows up in 30 days to verify that backflow has been installed.
    - Action noted in residential assessment database.
    - Action noted by Cross Connection Control Specialist. Refer to Section 8 for contact information.

# 10 User Supervisors

In accordance with the State CCCPH, Section 3.2.2 (3)(f),The State Water Board and District 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 District of changes in piping, and maintain current contact information on file with the District; and,

(2) The District 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 District, 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 District has not required any user supervisors for use sites within the District.

# 11 Backflow Prevention Assembly Testing and Reporting

In accordance with the State CCCPH, Section 3.1.3 (a)(6) – the District must ensure that each BPA required by the CCCMP to protect the District's domestic water system is field tested. The District has developed and implemented 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 District 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 District, 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 District 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 District. Extensions may be allowed at the District's discretion.

Backflow prevention assembly testers must notify the District 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 District 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 District receives a confirmation of a passing BPA field test from a backflow prevention assembly tester and the assembly is protecting the District.

## 11.1 Backflow Testing Notification Process

For each BPA in the District's water distribution system, an annual notice that the BPA must be tested in accordance with the CCCMP will be distributed via direct mail.

Upon receipt, the Owner will have approximately one month to have the BPA tested by a certified backflow assembly tester, and the test results submitted to the District via direct mail or electronically via e-mail.

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 District.

- The District will notify each affected water user when it is time to test the BPA installed at their service connection. The initial written notice shall allow 30 calendar days to complete the testing and submit results using a District-approved form.
- If the required test results are not submitted within 30 days, the District will issue a second notice providing an additional 14 days to comply.
- If no response is received within the second notice period, the District may initiate water service termination procedures as outlined in CCCMP Section 11.3.

## 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, removed, or tampered with, the District shall implement the following actions:

1. The District shall notify the owner of the BPA in writing, identifying the necessary corrective action, such as repair, reinstallation, or replacement, and the timeframe for compliance.
2. If the owner fails to complete the corrective action within the specified timeframe, the District may terminate water service to the premises until the BPA is repaired and passes inspection.

## 11.3 Water Service Termination

When the District identifies a condition that presents a clear and immediate hazard to the public water supply—including, but not limited to, the lack of adequate backflow protection or a confirmed backflow incident—it may terminate water service without delay until the condition is corrected.

Water service may be terminated for the following conditions:

(a) Failure to install a required backflow prevention assembly;

(b) Failure to test a BPA as required;

(c) Failure to repair or maintain a BPA;

(d) Failure to replace a failed BPA;

(e) Unauthorized cross connections or interconnections (e.g., sewer, auxiliary water, unprotected equipment);

(f) Any condition deemed an immediate public health risk.

For violations under items (a)–(d), the District shall issue two written notices identifying the corrective action required and applicable deadlines. If unresolved within the notice period, the District may terminate water service.

For violations under items (e)-(f) or other immediate hazards, the District shall make reasonable efforts to notify the water user, then terminate service immediately. Service shall remain off until corrective actions are verified by the District.

# 12 Public Outreach and Education

In accordance with State CCCPH, Section 3.1.3 (a)(9) and Section 3.1.4 (b)(12) – the District 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 District has a designated Public Information Officer (PIO) that provides a point of contact for the District regarding the District's cross connection control and backflow protection program and other water related issues. The District's PIO is:

Sherri Seitz
Public Affairs Manager
(949) 837-7050 x 239
sseitz@etwd.com

Public Outreach to educate the District's customers on backflow and cross connection control include information on backflow and cross connections on the District's website which is https://etwd.com/doing-business/about-cross-connection/. 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, District newsletter, new customer documentation, emails, and additions to the District's Consumer Confidence Reports (CCR).

# 13 Local Entity Coordination

In accordance with the State CCCPH, Section 3.1.3 (a)(10) and Section 3.1.4 (b)(13) The District 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 District the local entities which are involved in cross connection control include, but are not limited to:

Orange County Health Care Agency (OCHCA)
Contact Name: Hisham Elmishad
Address: 1241 E. Dyer Rd., Suite 120, Santa Ana, CA 92705
Phone: (714) 433-6284
Email: HElmishad@ochca.com
Coordination includes: cross connection, backflow tester certification, and internal backflow protection

City of Laguna Woods
Contact Name: April Baumgarten
Address: 24264 El Toro Road, Laguna Woods, CA 92637
Phone: (949) 639-0568
Email: abaumgarten@cityoflagunawoods.org
Coordination includes: recycled water cross connection testing, plan check, and backflow testing

City of Laguna Hills
Contact Name: Cathy Tuper
Address: 24035 El Toro Road, Laguna Hills, CA 92653
Phone: (949) 707-2676
Email: ctuper@lagunahillsca.gov
Coordination includes: recycled water cross connection testing, plan check, and backflow testing

City of Mission Viejo
Contact Name: Larry Longenecker
Address: 200 Civic Center, Mission Viejo, CA 92691
Phone: (949) 470-3053
Email: llongenecker@cityofmissionviejo.org
Coordination includes: plan check and backflow testing

City of Aliso Viejo
Contact Name: Shaun Pelletier
Address: 12 Journey, Suite 100, Aliso Viejo, CA 92656
Phone: (949) 425-2533
Email: spelletier@avcity.org
Coordination includes: plan check and backflow testing

City of Lake Forest
Contact Name: Yasaman Houshyar
Address: 100 Civic Center Drive, Lake Forest, CA 92630
Phone: (949) 461-3464
Email: yhoushyar@lakeforestca.gov
Coordination includes: plan check and backflow testing

Village Management Services
Contact Name: Rigoberto Arcero
Address: 24351 El Toro Road, Laguna Woods, CA 92637
Phone: (949) 285-3046
Email: Rigoberto.arcero@vmsinc.org
Coordination includes: recycled water cross connection testing, backflow testing/maintenance

Orange County Fire Authority
Contact Name: David Nickols
Address: 1 Fire Authority Road, Irvine, CA 92602
Phone: (714) 573-6475
Email: davidnockols@ocfa.org
Coordination includes: fire service connection/disconnection, backflow testing

The District 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.

# 14 Severability

If any section, subsection, provision, or portion of this Cross Connection Control Management Plan is held to be invalid or unenforceable by a court of competent jurisdiction, such ruling shall not affect the validity of the remaining provisions. The District declares that it would have adopted this Plan and each section, subsection, provision, or portion thereof, independently of any such ruling.

# 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

[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.

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.

# Appendix B

## Assembly Bill 1671 (2017, Chapter 533) and Assembly Bill 1880 (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.

# Appendix C

# Administrative Code

## CROSS CONNECTION CONTROL PROGRAM

### §12000 CROSS CONNECTION CONTROL MANAGEMENT PLAN

The District's Cross Connection Control Program is governed by the Cross Connection Control Management Plan (CCCMP), developed in accordance with the State Water Resources Control Board's Cross Connection Control Policy Handbook (CCCPH), effective July 1, 2024. The CCCMP outlines the procedures and responsibilities for preventing backflow and protecting the public water system from cross connections, as required by Section 3.1.4(b)(1) of the CCCPH. The CCCMP is incorporated herein by reference and shall be maintained and updated as necessary to ensure ongoing compliance with state regulations.

---

# Appendix D

## High Hazard Premises

# APPENDIX D

## 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

# APPENDIX E

## Phase 1 Database

The District records data for all customers with backflow in its Syncta software. Below is an example of the data fields collected and stored for these customers.

- Name
- Serial
- Syncta Id
- Type
- Make
- Model
- Size
- Service Id
- Service Id 2
- Assembly Location
- Assembly Comment
- Service Location Name
- Service Location Nickname
- Assembly Status
- Notification Frequency
- Last Notified At
- Last Notification
- Notification Template
- Customer Address Line1
- Customer Address Line2
- Customer City
- Customer State
- Customer Zip
- Customer Phone
- Customer Email
- Service Location Line1
- Service Location Line2
- Service Location City
- Service Location State
- Service Location Zip
- Removed On
- Created On
- Water Purveyor
- Last Tested At
- Last Test Result
- Next Test Date
- Notification Month
- Testing Frequency
- Location Type
- Install Date
- Hazard Type
- Downstream Process

# APPENDIX E

## Phase 2 Database

The District will send the survey included in Appendix F and record the following data in an Excel database. Should any new backflows be required as a result of this effort, they would be added to the Syncta database described for Phase 1.

- Dental and/or medical equipment using water (Y/N)
- Pumps or motors connected to water or sewer piping (Y/N)
- Chemicals in quantities greater than 5 gallons or 5 lbs (Y/N)
    - List of chemicals if yes
- Laundry facilities (Y/N)
- Multiple tenant suites (Y/N)
- Graywater system(s) (Y/N)
- Water storage tanks, ponds, water treatment systems, sewage treatment, sewage storage, and/or wells (Y/N)
    - Description if yes
- Petroleum, chemical or radioactive materials processing or storage (Y/N)
- Inspection requested (Y/N)
- Business type
- Service ID
- Contact Name
- Business Name
- Phone No.
- E-mail
- Date
- Degree of Hazard
- Meter protection appropriate for Degree of Hazard (Y/N)
- Internal Protection and Referral to OC Health
- Cross Connection Control Specialist Reviewer
- Cross Connection Control Program Specialist Certification No.
- Expiration Date
- Review Date

# APPENDIX E

## Phase 3 Database

The District will conduct a desktop survey of all residential customers and record the following data in an excel database:

- Service ID
- Review Date
- Degree of Hazard

# Appendix F

## Self-Report Letter
## (Commercial/Industrial Assessments)

# El Toro Water District - Commerical/Industrial Onsite Use Questionnaire

**To help prevent backflow incidents please answer the questions below.**

*On December 19, 2023, the State Water Resources Control Board adopted the Cross-Connection Policy Handbook, which became effective on July 1, 2024. This new legislation requires each public water system to conduct initial and ongoing inspections of potentially high hazard facilities to determine the level of hazard within your facility. The District is asking that each customer of a commerical/industrial site complete the survey below and return the completed survey to the Cross Connection Department at backflow@etwd.com*

**On your property do any of the following exist:**

- ☐ Dental and/or medical equipment using water
- ☐ Pumps or motors connected to water or sewer piping
- ☐ Chemicals in quantities greater than 5 gallons or 5 lbs.

  If yes, what chemicals are present:

  _____

  _____
- ☐ Laundry facilities
- ☐ Multiple tenant suites
- ☐ Graywater system(s)
- ☐ Water storage tanks, ponds, water treatment systems, sewage treatment, sewage storage, and/or wells

  If yes, please describe:

  _____

  _____
- ☐ Petroleum, chemical or radioactive materials processing or storage
- ☐ I am uncertain of the hazards on site and request an inspection.

**Type of Business**

- ☐ Veterinary
- ☐ Pet grooming
- ☐ Medical/Dental
- ☐ Office/Warehouse
- ☐ Hotel/Motel
- ☐ Other (explain below):
- ☐ Manufacturing
- ☐ Food Processing
- ☐ Restaurant
- ☐ Aerospace
- ☐ Retail

**Site Contact**

Service ID: _____

Contact Name: _____

Business Name: _____

Phone No. _____

Email: _____

I certify that the above information is true and correct to the best of my knowledge.

Signature _____

Print Name: _____

Title: _____

Date: _____

**FOR WATER PURVEYOR USE ONLY**

| Degree of Hazard | Meter protection appropriate for Degree of Hazard | Internal Protection and Referral to OC Health |
|---|---|---|
| ☐ High | ☐ Yes | ☐ Yes |
| ☐ Low | ☐ No | ☐ No |
| ☐ No Hazard | | |

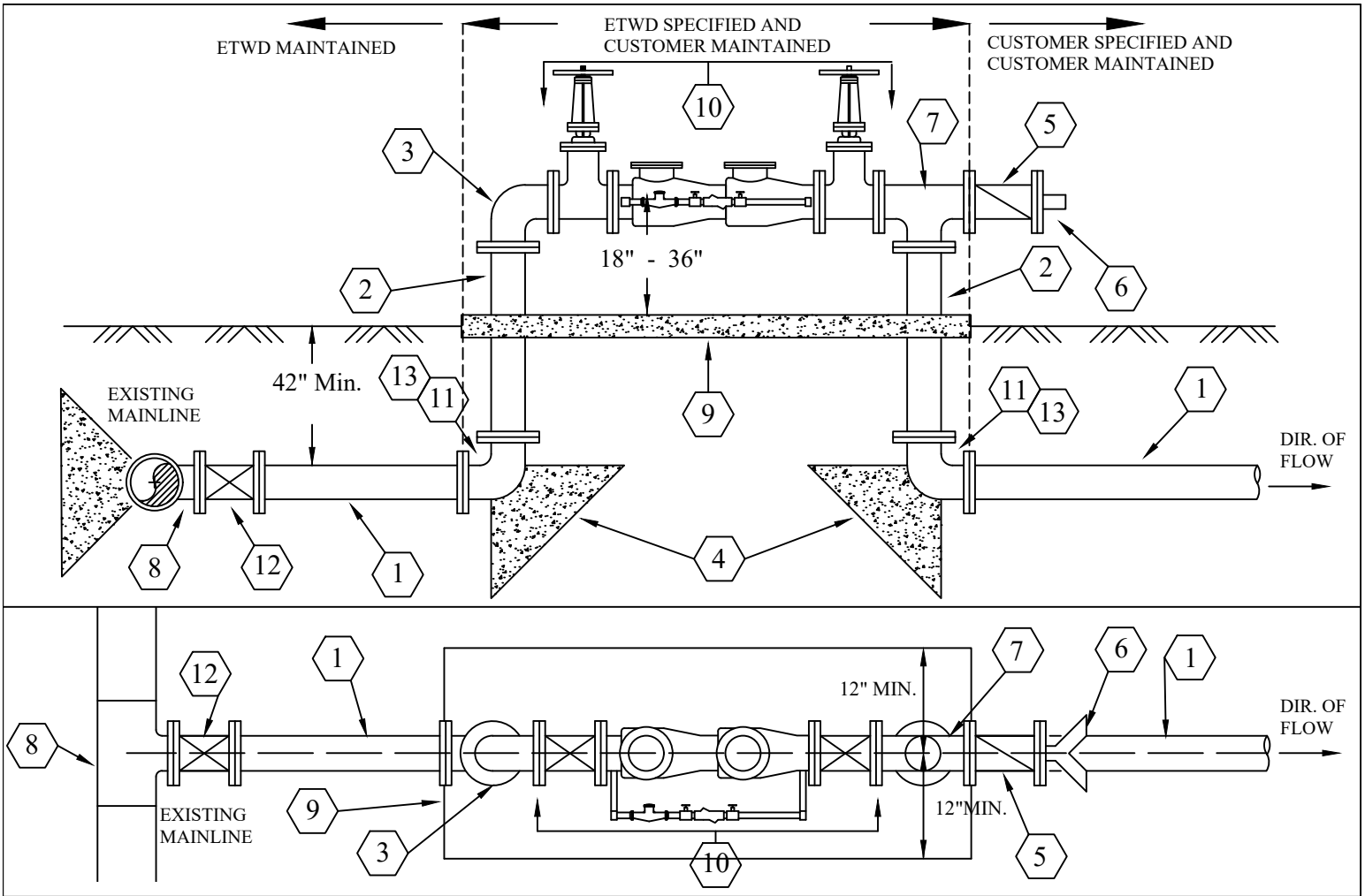
**Cross-Connection Control Specialist Reviewer:** _____

**Cross-Connection Control Program Specialist Certification No.** _____ **Expiration Date:** _____

**Review Date:** _____

# Appendix G

# Backflow Prevention Assembly Diagrams




# LEGEND

1. DUCTILE IRON PIPE OR C-900 P.V.C. PIPE.
2. DUCTILE IRON PIPE MORTAR LINED SPOOL. FLG. x FLG. OR FLG. x P.E. CUT TO FIT.
3. CAST IRON, MORTAR LINED, FLG. x FLG. 90 BEND.
4. THRUST BLOCK PER ETWD STD. DWG. 'W-R'.
5. CHECK VALVE.
6. F.D.C. 'Y' TYPE 2-1/2" FEMALE CONNECTOR.
7. FLG. x FLG. x FLG. CAST IRON, MORTAR LINED TEE.
8. TAPPING SLEEVE SHALL BE INSTALLED WITH A MIN. DISTANCE OF 18" FROM ANY COLLAR/FITTING/COUPLING/TAPPING SADDLE.
9. CONCRETE PAD REQUIRED ONLY IF BACKFLOW DEVICE IS REQUIRED TO HAVE PIPE SUPPORTS (SEE NOTE 10) CONCRETE SHALL BE 6" THICK WITH WITH 6X6 W.W.F. PLACED IN THE CENTER.
10. DOUBLE CHECK OR REDUCED PRESSURE DETECTOR CHECK ASSEMBLY WITH 5/8" BY-PASS METER (READS IN 100 CUBIC FEET). DEVICE SHALL BE FROM THE USC APPROVED LIST. TEST COCKS SHALL REMAIN IN PLACE AT ALL TIMES, REMOVAL LEADS TO UNAUTHORIZED USED. PIPE SUPPORTS REQUIRED FOR 6" AND ABOVE BACKFLOW DEVICES. BRASS PLUGS ARE REQUIRED AND ARE TO REMAIN ON DEVICE.
11. CAST IRON, MORTAR LINED FLG. x FLG. OR FLG. x M.J. 90 BEND.
12. RESILIENT WEDGE GATE VALVE.
13. ALL M.J. FITTINGS SHALL BE RESTRAINED. INSTALL SST ALL THREAD AS DIRECTED BY THE ETWD INSPECTOR.
14. FINAL ASSEMBLY TO BE PAINTED RED.
15. NOTIFY ETWD PRIOR TO INSTALLATION OF BACKFLOW DEVICE.
16. FIRE DEPARTMENT CONNECTION AND POST-INDICATOR VALVES SHALL NOT BE PART OF THE BACKFLOW DEVICE AND MUST BE INSTALLED ON THE CUSTOMER SPECIFIED PIPING.
17. BACKFLOW ASSEMBLY SHALL BE A MIN. OF 36" FROM ANY STRUCTURE, CURB, OR SIDEWALK.
18. BY-PASS METER TO BE USED FOR FIRE SYSTEMS ONLY. DO NOT INSTALL BY-PASS METER WHERE SUPPLY TO DEVICE IS ALREADY METERED.
19. INSTALLATIONS SHALL BE ABOVE GROUND WITH UNOBSTRUCTED ACCESS TO BACKFLOW DEVICE.
20. UPON COMPLETION OF INSTALLATION, BACKFLOW DEVICE SHALL BE TESTED FOR ADEQUACY AND OPERATIONAL COMPLIANCE BY A TESTER CERTIFIED BY THE ORANGE COUNTY HEALTH DEPARTMENT. TESTER SHALL FURNISH A CERTIFICATE OF TEST OF THE DEVICE. IF DEVICE DOES NOT PASS, CUSTOMER SHALL MAKE CORRECTIONS UNTIL A PASSING RESULT IS ACHIEVED.

| REVISION | DRAWN | APPROVED | DATE |
|---|---|---|---|
| 1 | D.P.C. | R.R.H. | 06/18/1999 |
| 2 | R.M.H. | D.P.C. | 06/24/2022 |
| | | | |

APPROVED:

DATE

EL TORO WATER DISTRICT

# FIRE SERVICE CONNECTION

STANDARD DRAWING
W-O

NOTES

1. ALL NEW AND/OR REPLACEMENT BACKFLOW PREVENTION ASSEMBLIES FOR METER PROTECTION SHALL BE INSTALLED AS CLOSE AS PRACTICAL TO THE METER BOX BUT NOT FURTHER THAN 12" UNLESS A VARIANCE IS OBTAINED FROM ETWD PRIOR TO INSTALLATION.

2. ALL BACKFLOW PREVENTION ASSEMBLIES MUST BE ON THE CURRENT USC FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES.

3. UPON COMPLETION OF THE INSTALLATION OF THE ASSEMBLY, A TEST SHALL BE PERFORMED AND A CERTIFICATE OF ADEQUACY AND OPERATIONAL COMPLIANCE SHALL BE FURNISHED TO ETWD. THE TEST SHALL BE PERFORMED BY A TESTER CERTIFIED BY THE ORANGE COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH.

4. ETWD MAINTENANCE RESPONSIBILITY STOPS AT THE METER. THE CUSTOMER IS RESPONSIBLE TO TEST AND MAINTAIN THE BACKFLOW PREVENTION ASSEMBLY.

5. BACKFLOW CERTIFICATION TESTING IS REQUIRED ANNUALLY AT A MINIMUM BUT MAY BE MORE FREQUENT AS DEEMED NECESSARY BY ETWD. CERTIFICATION TESTING IS REQUIRED IMMEDIATELY AFTER AN ASSEMBLY IS RELOCATED, REPLACED, AND REPAIRED.

6. BACKFLOW PREVENTION ASSEMBLY SIZE SHALL MATCH THE DIAMETER OF THE METER IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE□CHAPTER 6, SECTION 610 AS AMENDED, OR UP TO 1" LARGER.

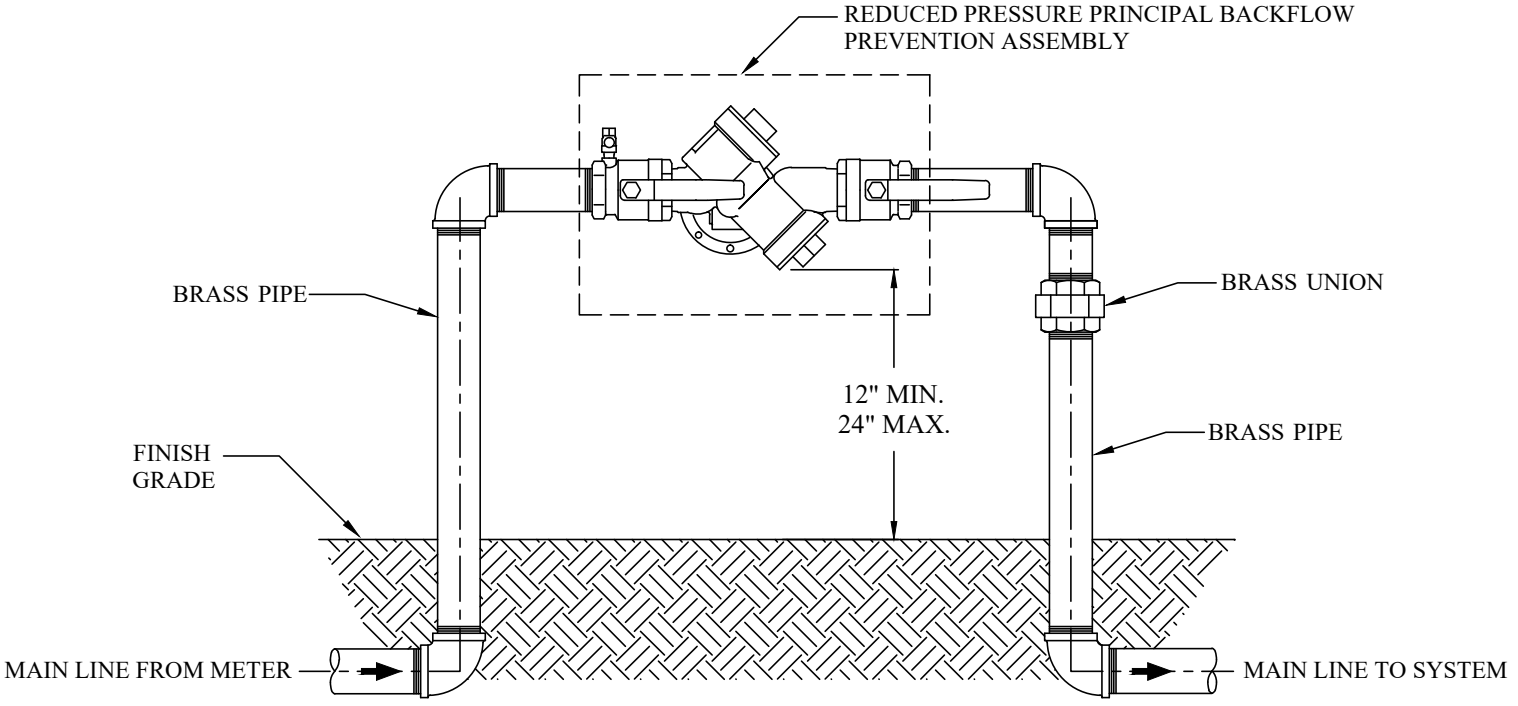
7. BACKFLOW PREVENTION ASSEMBLY INSTALLATIONS INCLUDING ALL APPURTENANCES FOR THE SUPPLY OF DOMESTIC WATER SHALL COMPLY WITH THE REQUIREMENTS OF THE CALIFORNIA LEAD-FREE ACT AB1953.

8. NO OUTLETS, TEES, OR CONNECTIONS SHALL BE ALLOWED BETWEEN THE METER AND THE BACKFLOW PREVENTION ASSEMBLY.

9. BACKFLOW PREVENTION ASSEMBLIES SHALL MAINTAIN A VERTICAL CLEARANCE FROM THE LOWEST POINT OF 12" (MIN.) TO 24" (MAX.) ABOVE FINISH GRADE, WITH SIDE AND TOP CLEARANCES OF 12" (MIN.) FOR ANY OBSTRUCTIONS IN ALL DIRECTIONS.

10. PARALLEL INSTALLATIONS OF THE SAME TYPE OF BACKFLOW PREVENTION ASSEMBLIES ARE RECOMMENDED FOR ALL FACILITIES REQUIRING UNINTERRUPTED WATER SUPPLY, SUCH AS, HOSPITALS AND SCHOOLS.

11. THEFT PREVENTION DEVICES ARE RECOMMENDED FOR BRASS ASSEMBLIES ALLOWING ADEQUATE ACCESS TO THE ASSEMBLY FOR TESTING, MAINTENANCE, AND PROPER DRAINAGE.




| REVISION | DRAWN | APPROVED | DATE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |

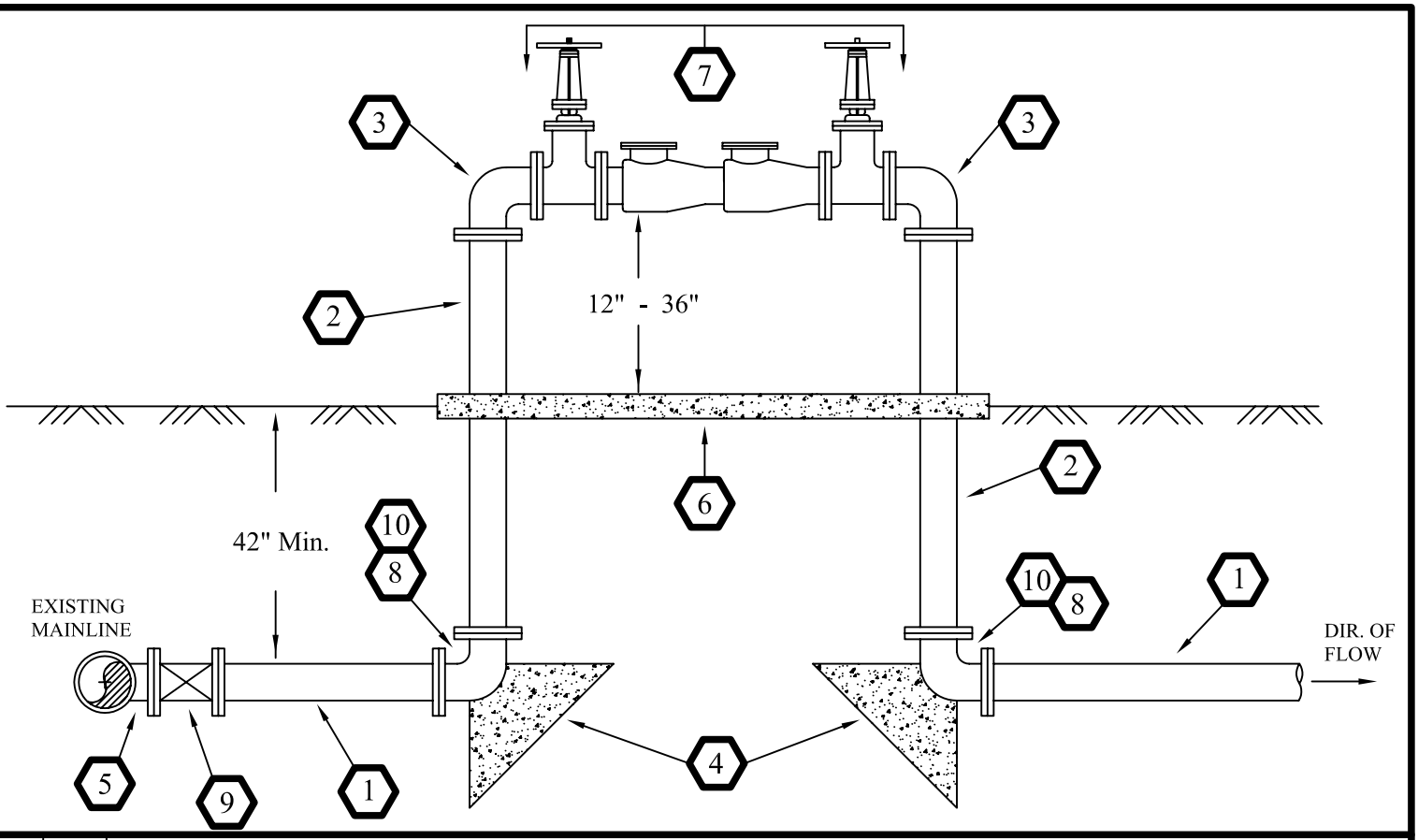
APPROVED:

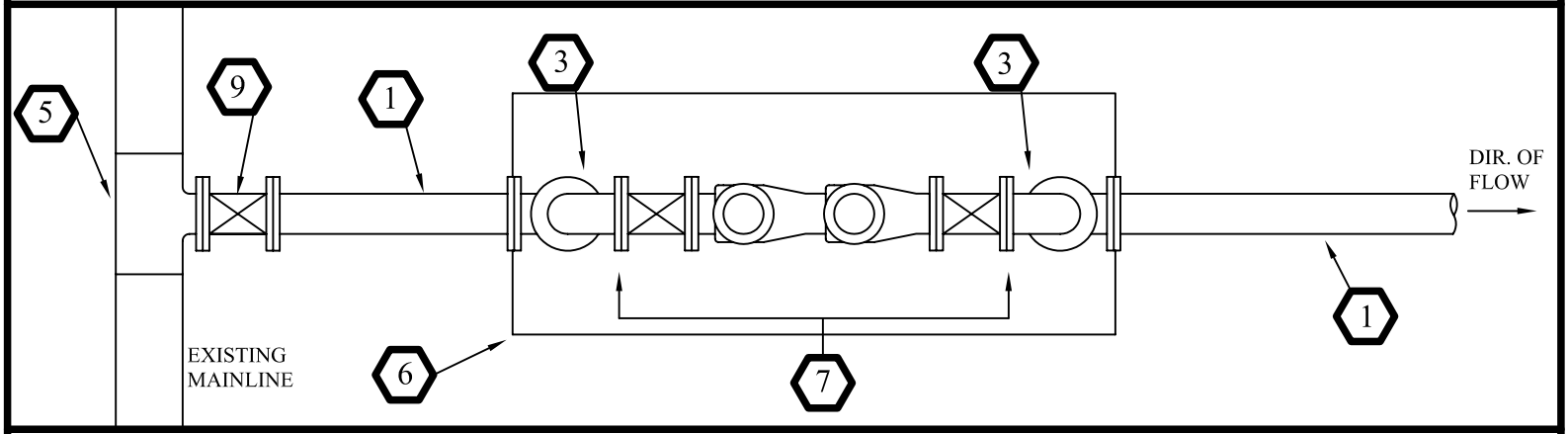
DATE

EL TORO WATER DISTRICT

# 3/4" - 2" BACKFLOW PREVENTION ASSEMBLY

STANDARD DRAWING
W-P




## LEGEND

1. DUCTILE IRON PIPE OR C-900 P.V.C. PIPE.
2. DUCTILE IRON PIPE MORTAR LINED SPOOL. FLG. x FLG. OR FLG. x P.E. CUT TO FIT.
3. CAST IRON, MORTAR LINED, FLG. x FLG. 90° BEND.
4. THRUST BLOCK PER ETWD STD. DWG. 'W-R'.
5. TAPPING SLEEVE PER ETWD STANDARDS.
6. OPTIONAL 4" CONCRETE PAD. LENGTH AND WIDTH TO BE FIELD DETERMINED.
7. APPROVED DOUBLE CHECK OR REDUCED PRESSURE DETECTOR CHECK ASSEMBLY PER ETWD STANDARDS.
8. CAST IRON, MORTAR LINED FLG. x FLG. OR FLG. x M.J. 90° BEND.
9. RESILIENT WEDGE GATE VALVE PER ETWD STANDARDS.
10. ALL M.J. FITTINGS SHALL BE RESTRAINED. INSTALL SST ALL THREAD AS DIRECTED BY THE ETWD INSPECTOR.

| REVISION | DRAWN | APPROVED | DATE |
|---|---|---|---|
| 1 | D.P.C. | R.R.H. | 05/16/00 |
| | | | |
| | | | |

APPROVED:

DATE

EL TORO WATER DISTRICT

# 2" - 10" BACKFLOW PREVENTION ASSEMBLY

STANDARD DRAWING
W-Q

# Appendix H

# District Records Retention Policy

El Toro Water District is currently in the process of revising its Records Retention Policy to align with updated, applicable legal and regulatory requirements. As part of this revision, the District will incorporate provisions consistent with DDW's CCCPH. Upon completion, the revised policy will formally establish retention standards for backflow prevention and cross connection control records to ensure compliance with CCCPH requirements, including the retention of test reports, survey data, enforcement actions, and program documentation for the specified durations in this Plan.

# Appendix I

# Cross Connection Incident Response Form

# 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/District 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
- ☐ No

If Yes

Name: _____

Date: _____ Time of Notice: _____

(714) 955-3963 or WQOnCall@ochca.com