Cross-Connection Control Program Plan

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1. REQUIREMENT

West Kern Water District, Public Water System 1510022, hereinafter referred to as "the District", has the responsibility to protect the public water system from contamination due to cross connections.

> A cross connection may be defined as *"any actual or potential connection or structural arrangement between a public water system (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, improperly installed 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]"*

All public water systems are required to develop and implement cross-connection control (CCC) programs. The CCC requirements are contained in the California State Water Resources Control Board (SWRCB) Cross-Connection Control Policy Handbook (CCCPH). The minimum required elements of a CCC program are:

- Authority to Operate Program
- Cross-Connection Control Program Coordinator (CCCPC)
- Hazard Assessments
- Backflow Prevention
- Certified Backflow Prevention Assembly Testers (BPAT) and Certified Cross-Connection Control Specialists (CCCS)
- Backflow Prevention Assembly Testing
- Recordkeeping
- Backflow Incident Response, Reporting and Notification
- Public Outreach and Education
- Local Entity Coordination

The term "Customer" is used throughout this Cross-Connection Control Program Plan (CCCPP). Customer, as used herein, means the person, corporation, partnership, or other agency of record supplied or entitled to be supplied with water service for compensation by the District (i.e., whoever interfaces with the District regarding water service).

All Cross-Connection Control related terms used in this Plan have the same definitions as those contained in Chapter 3, Article 1 of the CCCPH, attached hereto as Appendix A.

[1] California Cross-Connection Control Policy Handbook (2024)

2. OBJECTIVES

The objectives of the District's CCCPP are to:

1. Protect and reasonably reduce the District's public potable water supply from contaminants or pollutants contained within the Customer's internal distribution system(s) or the Customer's private water system(s);

2. Promote the elimination or control of existing cross-connections, actual and/or potential, between the Customer's internal potable water system(s) and non-potable water system(s), plumbing fixtures, and industrial piping systems;

3. Provide for the maintenance of a continuing CCCPP which will systematically and effectively prevent the contamination or pollution of the District's potable water system: and,

4. Reasonably reduce the District's exposure to legal liability arising from the backflow of any contaminant originating from the Customer's plumbing system and then supplied to other Customers.

3. PROGRAM DECISIONS

The major policy and program decisions adopted for the District's water system are summarized in Table 3-1. The items in the table represent CCCPP areas that have more than one acceptable approach or option.

Table 3-1: CCCPP Decision Summary for the West Kern Water District

Decision Item	**Decision**
1. Type of Program	
a. Premises containment only	
b. Premises containment and in-premises isolation protection (combination program)	✓
2. Extent of Coordination with Local Administration Authority (LAA)	
a. Information exchange	✓
b. Interaction	
c. Joint program	
3. Relationship with Customer	
a. Signed Water Service Application	✓
b. Ordinance/Rules & Regulations	✓
4. Enforcement of Corrective Action	
a. Rely upon disconnection of water service	✓
b. Rely upon District-installed premises containment	
5. Assessment and Re-assessment of Hazards	
a. By District's staff	✓
b. By a certified Cross-Connection Control Specialist (CCCS) employed by Customer; report reviewed by District's CCCS	
6. Location and Ownership of Premises containment Assembly	
a. On District's service line	
b. On Customer's service line	✓
7. CCCS Option – District's Program Management	
a. District's staff member certified	✓
b. Inter-agency agreement or use other agency's CCCS	
c. Contract with consultant CCCS	
8. Testing of Assemblies	
a. By District's staff or District-employed Backflow Prevention Assembly Tester (BPAT)	
b. By Customer -employed (contractor) BPAT	✓
9. Cost Recovery	
a. Borne by all Customers (general water rates)	✓
b. Assessed to specific class (commercial meters)	
c. Each Customer directly bears cost	✓

4. ELEMENTS OF THE PROGRAM

1. AUTHORITY.

1. On June 24, 2025, the District adopted Ordinance No. 25-01, attached hereto as Appendix B, adopting and approving this CCCPP.

2. The Water Service Application will be the primary enforcement authority for all new Customers (see Appendix C Water Service Application). As set forth in the Water Service Application and the District's Rules and Regulations, the District may terminate the water service of any Customer that does not comply with those requirements set forth in this CCCPP.

3. Existing Customers (i.e., those receiving water service prior to the adoption of this CCCPP) will be under the same obligation to comply with the requirements set forth in the Water Service Application.

Table 4.1-1: Ordinance Adoption Schedule

Status	**Schedule**
Preparation of proposed Ordinance	July 2024-May 2025
Introduction of the proposed Ordinance to the Board of Directors	June 24, 2025
Acceptance of Ordinance	June 24, 2025
Ordinance becomes effective	June 24, 2025

2. CROSS-CONNECTION CONTROL PROGRAM COORDINATOR.

A. PROGRAM ADMINISTRATION.

1. The responsibility for administration of the CCCPP rests with the District. General policy direction and risk management decisions are established by the District's Board of Directors.

2. The District will employ at least one person designated as the Cross-Connection Control Program Coordinator (CCCPC) to develop and implement the CCCPP. The CCCPC will be responsible for the implementation, reporting, tracking, and other administration duties of the CCCPP.

3. The District will employ, or have on staff, at least one person certified as a Cross-Connection Control Specialist (CCCS) to develop and

implement the CCCPP. The District's certified CCCS, or their designee, will be available within one (1) hour of a cross-connection incident.

4. The following cross-connection related tasks will be developed and implemented by or under the direction of the District's CCCPC, in consultation with the District's certified CCCS:

    - Preparation of and recommendations regarding changes to the CCCPP;
    - Performance of and/or reviews of CCC hazard evaluations;
    - Recommendations on the type of backflow preventer to be installed;
    - Recommendations on schedules for retrofitting of backflow preventers;
    - Inspections of backflow preventers for proper application and installation;
    - Reviews of backflow preventer inspection and test reports;
    - Reviews of backflow testing quality control information;
    - Recommendations and/or the granting of exceptions to mandatory premises containment;
    - Participation in, or cooperation with, other District staff in the investigation of backflow incidents and other water quality problems;
    - Completion of Backflow Incident Reports; and
    - Completion of CCC Activity and Program Summary Reports.

5. The District may delegate other CCCPP activities to other personnel who are not CCCPCs or certified CCCSs, including clerical support staff. These activities include:

    - Administration of paperwork associated with service agreements;
    - Mailing, collecting, and initial screening of hazard evaluation/water use questionnaires;
    - Mailing of assembly testing notices;
    - Receiving and screening of assembly testing reports;
    - CCCPP database administration and record keeping; and
    - Dissemination of public education material.

6. The following table identifies the current CCCPC employed by the District to manage the District's CCCPP:

Name of CCCPC	Zachary Crabb
Address	800 Kern St
City, State, Zip	Taft, CA 93268
Telephone Number	661-577-6881
CCCS Certification Number	10461

7. The following table identifies the current certified CCCS employed by the District to act as the CCCPP technical resource for the District:

Name of CCCS	Zachary Crabb
Address	800 Kern St
City, State, Zip	Taft, CA 93268
Telephone Number	661-577-6881
CCCS Certification Number	10461

8. The following table identifies the authorized alternative designated representative(s) of the CCCPC in the event of a cross-connection incident:

Name of Designee	Derek Griffith
Address	800 Kern St
City, State, Zip	Taft, CA 93268
Telephone Number	661-577-6777
CCCS Certification Number (If Applicable)	03479

3. HAZARD ASSESSMENTS.

A. PREVENTION OF CONTAMINATION.

The Customer's potable water system, starting from the termination of the District's water service pipe, shall be considered a potential high-health hazard requiring the isolation of the Customer's premises by an approved, Customer-installed and maintained, reduced-pressure principle backflow assembly (RP) or reduced-pressure detector assembly (RPDA). The RP or RPDA shall be located at the end of the District's water service pipe (i.e., immediately downstream of the meter).

The District shall only provide water service to a Customer through an approved, customer-installed and maintained RP or RPDA. Further, the District shall not install or maintain a water service connection to any premise unless the water supply is protected, as required by this CCCPP, and District's Rules and Regulations.

The Customer's potable water system shall be open for inspection, at all reasonable times, to authorized representatives of the District, to determine whether unprotected cross-connections or other structural or sanitary hazards, including violations of the District's CCCPP exist. The District shall deny or immediately discontinue water service to any premises by providing for a physical break in the service line if the District determines any of the following:

- A required RP or RPDA is not installed, tested, and maintained at the premises.
- A RP or RPDA has been removed or bypassed at the premises.
- An unprotected cross-connection exists on the premises.

The District shall not restore water service to any premises found in violation until such condition(s) or defect(s) are corrected in conformance with the District's CCCPP.

Notwithstanding the aforesaid, the District will use the methods set forth in Section 4.3.B. Water System Hazard Assessment Evaluation Procedure to determine the risk of contamination, degree of hazard, posed by the Customer's potable water system and use of water, and *may* allow:

- A residential Customer to connect directly to the District's water service pipe, (i.e., without a District-approved, Customer-installed and maintained double-check valve assembly (DC) or RP).
- A residential Customer, as a minimum, to be supplied through a District-approved, Customer-installed and maintained DC.
- A residential Customer, other than commercial and industrial Customer, to connect directly to the water service pipe (i.e.,

without a District-approved, Customer-installed and maintained DC or RP), PROVIDED THAT the Customer installs and maintains backflow preventers, at the point of hazard, that are commensurate with the degree of hazard assessed by the District and in compliance with the California Plumbing Code (CPC).

- A non-residential Customer, as a minimum, to be supplied through a District-approved, Customer-installed and maintained DC or double-check detector assembly (DCDA).

B. WATER SYSTEM HAZARD ASSESSMENT EVALUATION PROCEDURE.

1. ***For all new non-residential services,*** the Customer must submit to a hazard assessment (see Appendix D) by the District's CCCS of potential hazard(s) posed by the proposed plumbing system, which may result in a recommendation for the installation at the meter of either a DC, RP, or an Air Gap (AG). Alternatively, the Customer may agree to install an approved and functional AG or RP for premises containment as a condition of service and must designate a User Supervisor responsible to oversee the premises and avoid cross-connections.

2. ***For all new residential services,*** the Customer must submit with its Water Service Application a completed "Water Use Questionnaire" (see Appendix E). If the Customer's questionnaire indicates special plumbing, such as a lawn sprinkler system or hazardous water use on the premises, the Customer must also submit to a hazard assessment by the District's CCCS of potential hazard(s) posed by the proposed plumbing system, which may result in a recommendation for the installation at the meter of a DC, RP, AG, or commensurate in-premises backflow protection. Alternatively, the Customer may agree to install an approved and functional AG or RP for premises containment as a condition of service.

3. ***For all existing non-residential services,*** the Customer must submit to a hazard assessment by the District's certified CCCS, within forty-five (45) days of notification of the hazard posed by the proposed plumbing system, which may result in a recommendation for the installation at the meter of either a DC, RP, or an AG. Alternatively, the Customer may agree to install an approved and functional AG or RP for premises containment as a condition of service.

4. ***For all existing residential services,*** the Customer must submit to the District, within forty-five (45) days of notification, a completed "Water Use Questionnaire." If the Customer's questionnaire indicates special plumbing, such as a lawn sprinkler system or hazardous water use on the premises, the Customer must also submit to a hazard assessment

by the District's certified CCCS of potential hazard(s) posed by the proposed plumbing system, which may result in a recommendation for the installation at the meter of either a DC, RP, an AG or commensurate in-premises backflow protection. Alternatively, the Customer may agree to install an approved and functional AG or RP for premises containment as a condition of service.

5. The SWRCB and District may, at their discretion, require a Customer to designate a User Supervisor when the user's premises has a multi-piping system that conveys various types of fluids and where changes in the piping system are frequently made. The User Supervisor will be responsible for the avoidance of cross-connections during the installation, operation, and maintenance of the Customer's pipelines and equipment. The User Supervisor represents the owner, tenant, or property manager as a liaison to the District. The User Supervisor must have the authority to carry out any requirements of the District. It is recommended that the User Supervisor be an employee who is permanently stationed at the premises or make frequent visits thereto.

   The User Supervisor must: (i) be trained on the fluids used and backflow protection for the premise, (ii) inform the District of changes in piping, and (iii) maintain current contact information on file with the District. The designated User Supervisor must complete a course, focused on backflow and cross-connection principles, within 120 days of receiving notification. The course must be approved by the District and paid for by the Customer.

   Additionally, User Supervisors:

   a. Are responsible for the operation, maintenance, and prevention of potential cross connections to the potable water system.

   b. Must be present at all hazard assessments and cross-connection control surveys.

   c. Must inform the District of any cross-connection incidents.

   d. Are expected to know the provisions contained in the California Cross-Connection Control Policy Handbook.

   e. Are expected to know the basic concepts of backflow and cross-connection prevention, and emergency response procedures.

   f. Are responsible for training personnel at the premises on the proper protection of the potable water system.

6. ***For all existing services***, should the Customer fail to allow for a hazard assessment or fail to submit a completed "Water Use Questionnaire," the District may: (1) require the installation of an RP or AG for premises containment; or (2) take other such actions consistent with the previously stated policies and bill the Customer for the associated costs.

C. CROSS-CONNECTION HAZARD SURVEY SCHEDULE FOR INITIAL HAZARD ASSESSMENTS.

1. The schedule for initial hazard assessment is outlined in Table 4.3.2-1, below. The schedule starts from the date the CCCPP is established.

2. Assessments completed prior to the adoption of the CCCPH will be considered as an initial hazard assessment until the following occur: (1) an account change; or (2) a scheduled re-assessment (see Table 4.3.2-1).

Table 4.3.2-1: Initial Hazard Assessment Schedule

Initial Assessment Task	**Schedule**
Assessment of all new connections	At time of application for water service
Identification and assessment of high-hazard premises which are listed in the CCCPH Appendix D attached herein as Appendix F	Within twelve (12) months
Identification and assessment of hazardous premises supplemental Appendix G to Appendix F	Within eighteen (18) months
Identification of residential connections with special plumbing facilities and/or water use on the premises	Within twenty-four (24) months

D. CROSS-CONNECTION HAZARD SURVEY SCHEDULE FOR SUBSEQUENT HAZARD RE-ASSESSMENTS.

1. For subsequent cross-connection hazard surveys (Re-assessments), procedures for evaluating the backflow prevention requirements are as follows:

   a. ***For residential services***, Customer must submit to the District, within forty five (45) days of District notification, a completed "Water Use Questionnaire." The procedure used for evaluating the hazard Re-assessment and the potential change in the required backflow prevention will be the same as used for the initial hazard assessment.

b. ***For all non-residential services***, the Customer must allow the District, within 45 days of District notification, to perform a hazard Re-assessment by the District's certified CCCS.

2. The frequency of Re-assessments will be as shown in Table 4.3.3-1 below:

Table 4.3.3-1: Frequency of Hazard Re-Assessments

Type of Service	**Frequency**
Any services with RP or AG installed for premises containment	If evidence exists of changes in the activities or materials on a Customer's premises, if a premises changes account holder, excluding single family residences, or if backflow from a Customer's premises occurs.
Non-Residential services with DC installed for premises containment	Every five years or upon change in use or ownership.
Residential services with special plumbing where the District relies upon compliance with the CPC (in-premises protection)	Every 2-3 years. (Water Use Questionnaire)
Residential services with DC installed for premises containment	Every 4-5 years. (Water Use Questionnaire)
Residential services with no known special plumbing or water use on the premises	Every 4-5 years and upon change in use, ownership, or plumbing system. (Water Use Questionnaire)

a. The District will inform the Customer that the District's survey of a Customer's premises (whether by a representative of the District or through the evaluation of a questionnaire completed by the Customer) is for the sole purpose of establishing the District's minimum requirements for the protection of the public water supply system, and that the required backflow protection will be commensurate with the District's assessment of the degree of hazard.

b. The District will also inform the Customer or any regulatory agencies that the District's survey, requirements for the installation of backflow prevention assemblies, lack of requirements for the installation of backflow prevention assemblies, or other actions by the District's personnel or agent do not constitute an approval of the Customer's plumbing system or an assurance to the Customer or any regulatory agency of the absence of cross connections.

4. BACKFLOW PREVENTION.

A. BACKFLOW PREVENTER REQUIREMENTS.

1. For all new and existing non-residential Customers, water service must be isolated at the meter by an approved DC or RP acceptable to the District. All high-hazard connections of the type described in Appendix F will be isolated with a RP or AG. All other non-residential Customers must be isolated with the minimum of a DC.

2. For all new and existing residential Customers with facilities of the type described in Appendix F, water service must be isolated with an RP. All other residential Customers with special plumbing or water use on the premises must be isolated with a DC. "Special plumbing" includes, but is not limited to, the following:

   a. A lawn irrigation system;

   b. A solar heating system;

   c. An auxiliary source of supply, e.g., a well or creek;

   d. Piping for livestock watering, hobby farming, etc.; and

   e. Residential fire sprinkler system.

3. Residential Customers not required to be isolated with an RP may install in-premises protection, with the concurrence of the District's CCCS, commensurate with the degree of hazard, as determined by the hazard assessment and in accordance with the CPC in lieu of isolation with a DC.

4. Additional premises requiring premises containment. The District may choose to supplement Appendix F by identifying additional premises or premises types for which premises containment is mandated.

   a. Facilities and activities requiring backflow protection are listed and indicated at the minimum protection level required in Appendix G. This list may be subject to change based on the findings of District's inspection of the premises. This is a non-exclusive list and any facility or activity not shown may be required to install backflow prevention devices as determined by the CCCPC.

5. For all Customers, the required premises containment DC or RP will be:

   a. Purchased and installed by the Customer (at the Customer's expense) immediately downstream of the water meter in

accordance with the District's CCCPP described hereinafter; and

b. Maintained, tested, and inspected by the Customer (at the Customer's expense) in accordance with the District's CCCPP described hereinafter.

6. For new Customers, the District will not turn on water (except for testing purposes) at the meter until the Customer complies with the above requirements.

7. Failure of the Customer to comply with the District's installation and maintenance requirements will constitute a breach of the Water Service Application by the Customer. The District may then proceed with the corrective action and enforcement provisions provided herein.

B. APPROVED BACKFLOW PREVENTERS AND INSTALLATION.

1. All backflow preventers relied upon by the District to protect the public water system will meet the definition of "approved backflow prevention assembly," as set forth in Section 4.4.B.10.

2. Air Gap Installation Requirements:

a. The receiving water container to be located on the Customer's premises at the Customer's service connection unless an alternate location has been approved by the PWS;

b. All piping between the Customer'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 PWS;

c. The PWS must ensure that the AG specified in CCCPH section 3.3.1 (a) has been installed; and

d. Any new AG installation at a user service connection must be reviewed and approved by the SWRCB prior to installation.

3. Backflow Preventer Installation Requirements:

a. Installed in the orientation for which they are approved.

b. Installed in a manner that will protect them from weather-related conditions such as flooding and freezing.

c. Installed as close to the point of connection to the District water supply as practical.

d. In no case shall a cut, tee, or tap be made between the Customer's

point of connection to the public water system and the backflow prevention assembly.

e. Installation of a backflow prevention assembly greater than 12 inches away from the water meter must be approved in advance by District. The service line between the water meter and the backflow prevention assembly shall be sleeved or capped by concrete to prevent future interconnections.

f. DC and RP assemblies must be installed with a minimum side clearance of 12 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. District may approve alternate clearances providing that there is adequate clearance for field testing and maintenance.

g. No post-manufacture modifications to backflow prevention assemblies shall be accepted. A manner and location that facilitates their proper operation, maintenance, and testing or inspection, and in compliance with safety regulations.

h. Accordance with the installation standards outlined in the most recently published edition of the CCCPH, or University of Southern California Foundation for Cross- Connection Control and Hydraulic Research (USCFCCCHR) Manual of Cross- Connection Control, unless the manufacturer's requirements are more stringent.

i. All backflow prevention assembly installations shall be inspected by the District prior to backfill, to ensure compliance with these requirements.

j. Installations shall conform to standard construction drawings and specifications of the District.

4. The District has no regulatory responsibility or authority over the installation and operation of the Customer's plumbing system. The Customer is solely responsible for compliance with all applicable regulations and for prevention of contamination of the plumbing system from sources within their premises. Any action taken by the District to survey plumbing, inspect or test backflow prevention assemblies, or to require premises containment (installation of DC or RP on service) is solely for the purposes of reducing the risk of contamination of the District's distribution system.

5. The District will inform the Customer that any action taken by the District should not be construed by the Customer as guidance on the safety or reliability of the Customer's plumbing system. The District

will not provide advice to the Customer on the design and installation of plumbing other than through the general public education program.

6. Except for easements containing the District's distribution system, the District will not undertake work on the Customer's premises.

7. All presently installed backflow prevention assemblies which do not meet the requirements of this section but were approved assemblies for the purposes described herein at the time of installation and which have been properly maintained, will, except for the field testing and maintenance requirements, be excluded from the requirements of these rules so long as the District and/or Kern County Environmental Health is assured that they will satisfactorily protect the District's system. Whenever the existing device is moved from the present location or requires more than annual testing or when the District or Kern County Environmental Health finds that the maintenance constitutes a hazard to health, the unit must be replaced, at the Customer's expense, by an approved backflow prevention assembly meeting the requirements of the District.

8. DCs installed to mitigate a health hazard must be replaced, at the Customer's expense, with an approved RP or AG at the discretion of, and within the time period specified by District.

9. Improper installations, such as installation in a confined space, with unapproved modifications or in an unapproved configuration or orientation, must be retrofitted with an approved method of backflow prevention installed in accordance with District's installation requirements, at the expense of the Customer, when repair of the assembly is required to pass a functional test. Notwithstanding anything contained herein, installations that create a risk to public health will require retrofit.

10. The District will ensure that approved backflow prevention assemblies protect the public water system from contamination. Any backflow prevention device or assembly required herein must be of a type, make, model and size approved by the District. The term "Approved Backflow Prevention Assembly" means an assembly that has been manufactured in full conformance with the standards established by at least one of the following:

    a. 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 (USCFCCHR).

    b. Certification requirements for BPAs in the Standards of American

Society of Sanitary Engineering (ASSE) International current as of 2022 that include ASSE 1015-2021 for the DC, ASSE 1048-2021 for the DCDA & DCDA-II, ASSE 1013-2021 for the RP, and ASSE 1047-2021 for the RPDA & RPDA-II and must have the 1YT mark.

11. Said USCFCCCHR and specifications have been adopted by District. Final approval must be evidenced by a "Certificate of Approval" for the said USCFCCCHR, issued by an approved testing laboratory.

12. Testing laboratories, other than the USCFCCHR and ASSE will be added to an approved list as they are qualified by the SWRCB.

13. Backflow preventers that may be subjected to backpressure or backsiphonage that have been fully tested and have been granted a Certificate of Approval by said qualified laboratory and are listed on the laboratory's current list of approved backflow prevention assemblies, may be used without further testing or qualification.

C. SCHEDULE FOR INSTALLATION OF BACKFLOW PREVENTERS.

The District will follow the schedule detailed in Table 4.4.3-1 for installation of backflow preventers when they are required (based on the hazard assessment).

Table 4.4.3-1: Schedule for Backflow Preventer Installation

Type of Service	Schedule
New connections with cross-connection hazards	Before service is initiated
Existing connections with Appendix F-type hazards and other high cross-connection hazards	Within ninety (90) days after notification
Existing connections with other than Appendix F or high cross-connection hazards	Within one hundred eighty (180) days after notification
Existing fire protection systems using chemicals or supplied by unapproved auxiliary water source	Within 90 days after notification
Existing fire protection systems not using chemicals and supplied by District's water	Within one year after notification

1. The District may consider granting an extension of time for installation of backflow preventer for an existing connection if requested, in writing, by the Customer.

5. Certified Backflow Prevention Assembly Testers and Certified Cross-Connection Control Specialists.

A. General Requirements.

1. Certified Backflow Prevention Assembly Testers (BPAT) will be responsible for ensuring that all backflow prevention assemblies at the Customer's service connection are identified and tested.

2. The District requires BPATs to notify the District within 24 hours if a backflow incident or cross-connection is observed during field testing. The District will immediately conduct an investigation and discontinue service to the Customer's premises if a backflow incident is confirmed, and water service will not be restored to that Customer's premises until the District receives a passing Backflow Prevention Assembly (BPA) field test from a certified BPAT and confirmation that the assembly is protecting the District.

3. If a BPAT finds an assembly that has been modified or incorrectly installed, the BPAT will not test the assembly and immediately submit the Backflow Assembly Test Report Form (BATR) to the District, describing the findings in the "Comments" section. All assemblies must be on the "Approved Backflow Prevention Assemblies" list developed by the USCFCCCHR Any modification of an assembly – such as relocation of valves, bypass arrangements, and jumper connections, whether temporary or permanent – invalidates the USCFCCCHR approval and is not permitted. Likewise, an assembly that has been installed in an orientation for which it was not designed or approved is also not permitted.

4. If a BPAT finds a cross-connection hazard that is unprotected, that is, with no backflow prevention assembly or the wrong type of assembly, the tester must inform the Customer of the hazard and potential health risk associated with it. The tester must also report the situation to the District immediately (by telephone if the hazard has no protection at all). An assembly that is the wrong type for the hazard should not be tested.

5. If a BPAT finds an existing backflow prevention assembly that is out of compliance with its test date, the BPAT must inform the Customer of the need to test the assembly and must report the assembly to the District immediately.

6. BPATs must report the removal or replacement of a backflow prevention assembly on a BATR. It is important that the information for both the old and new assemblies be reported on the same form.

B. LIST OF PRE-APPROVED CERTIFIED BPATS.

1. The District will maintain a list of certified BPATs that are pre-approved by the District to perform the following activities:

   a. Backflow preventer inspection for proper installation; and

   b. Backflow assembly testing, repair and installation

2. The list(s) will be revised annually, or more frequently if necessary.

C. PRE-APPROVAL QUALIFICATIONS.

1. BPATs who wish to be included on the District's list of certified BPATs and/or provide testing in the District's service area must apply with the District and furnish the following information:

   a. Evidence of current BPAT certification, as recognized in the CCCPH, in good standing;

   b. Make, model and serial number of testing equipment (BPAT listing only); and

   c. Evidence of test equipment verification of accuracy and/or calibration within the past 12 months (BPAT listing only).

2. Each certified tester who is not a District employee must maintain comprehensive or commercial general liability (CGL) insurance in full force and effect, at his or her expense, for all cross-connections control and backflow device testing activities. Such insurance must include (a) coverage for bodily injury, personal injury, including death resulting therefrom, and property damage insurance, with limits not less than $1,000,000 each occurrence combined single limit; (b) The District, its officers, employees, and agents are to be covered as insureds on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Tester including materials, parts, or equipment furnished in connection with such work or operations. Coverage can be provided by endorsement to the Test's insurance (at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37, or 20 40 if a later edition is used); (c) a cross-liability or severability of interest endorsement. Such insurance must provide 10 days prior written notice of cancellation, nonrenewal or material change to the District. A certificate of insurance, in form and with insurers acceptable to the District, will be required prior to the issuance of any tester's certificate or any renewal thereof.

3. Applicant and/or Company must not have been removed from another Agency's list, reprimanded by or subject of an investigation by an agency, or water utility related to backflow prevention assembly testing, installation, and repair or reporting.

4. Applicant and/or Company must not have any unresolved customer complaints reported to the District, certifying agency, or the State Contractor's License Board.

D. DENIAL, SUSPENSION OR REVOCATION OF BPAT APPROVAL.

1. The District's CCCPC may deny or suspend or revoke approval of an individual BPAT from the list of approved BPATs if:

   a. The BPAT is no longer in possession of a current and valid certificate as a Backflow Prevention Assembly Tester issued by the certification entity, as determined by the District.

   b. The BPAT is no longer in possession of a current and valid test kit calibration certificate.

   c. The BPAT fails to submit backflow assembly test report forms within five (5) days of performing a backflow assembly test required by District.

   d. The BPAT repeatedly submits incomplete or incorrect test reports to the District.

   e. The BPAT fails to report an assembly that has been modified or incorrectly installed.

   f. The BPAT performs a backflow prevention assembly repair with parts other than OEM parts.

   g. The BPAT performs a backflow assembly test using testing procedures other than those accepted by the District.

   h. The BPAT fails to ensure that all backflow prevention assemblies at the Customer's service connection are identified and tested.

   i. The BPAT fails to report a cross-connection hazard that is unprotected, that is, with no backflow prevention assembly or the wrong type of assembly.

   j. The BPAT fails to report the removal or replacement of a backflow prevention assembly on a Backflow Prevention Assembly Test Report.

   k. The BPAT fails to maintain the required insurance.

l. The BPAT performs a repair upon a backflow prevention assembly which has been required to be replaced by the District.

m. The BPAT fails to provide the District's CCCPC with a schedule or list of locations, dates and approximate arrival times during which the BPAT will be working within District's jurisdiction, upon request of the CCCPC.

n. If the BPAT has unresolved Customer complaints or complaints from multiple Customers.

o. If the BPAT is under investigation by a District Attorney, the CSLB, any Federal or State Law Enforcement agency, District or other organization conducting a CCCP with approved BPATs.

p. If the BPAT is removed from another agency's list of approved BPAT.

q. The District determines the BPAT committed fraud or gross negligence in performing their duties.

r. The District determines that a material misrepresentation was included or omitted by the BPAT on the backflow assembly test report form submitted to the District by the BPAT.

s. The District determines that a material misrepresentation was included or omitted by the BPAT on the initial or renewal application for BPAT certification by District.

t. The District determines that the BPAT, in the performance of a test or repair required by the District, commits an act that may pose a threat to public health and safety.

2. The District will provide the BPAT written notice of the denial, suspension, or revocation of approval by certified or electronic mail with a description of the violation and supporting facts. Additionally, the notice will contain:

a. Information regarding the right to appeal the District's decision.

b. The time period of denial, suspension, or revocation. The District may deny, suspend or revoke approval for a period of up to one (1) year.

c. The effective date of the denial, suspension, or revocation. Suspension or revocation issued will be effective ten (10) calendar days from the date appearing on the notice unless a timely appeal is filed.

E. BPAT APPEAL.

1. The District's decision to deny, suspend or revoke approval is appealable to the District's General Manager.

2. The appeal must be (i) in writing; (ii) hand-delivered or (iii) mailed to the District's General Manager on or before the effective date of suspension or revocation.

3. The filing of a timely appeal will stay a suspension or revocation, pending a decision on the appeal by the District's General Manger or their designee.

4. The District's General Manager, working with the District's Board of Directors, will schedule a public hearing within thirty (30) days of the submitted appeal, unless an extension is authorized by the appellant.

5. The following rules will apply to any appeal hearing required by this section: all parties involved will have the right to offer testimonial, documentary, and tangible evidence bearing on the issues, to be represented by counsel, and to confront and cross-examine witnesses. Any relevant evidence may be admitted if it is the sort of evidence upon which reasonable persons are accustomed to rely in the conduct of serious affairs. Formal rules of discovery do not apply to proceedings governed by this Section. Unless otherwise specifically prohibited by law, the burden of proof is on the BPAT in any hearing or other matter under this Section.

6. The District will not accept any reapplication within six (6) months after a BPAT approval is revoked.

7. The decision of the District's General Manger or his/her designee will be a final administrative order, with no further administrative right of appeal.

F. QUALITY ASSURANCE.

1. The District's CCCPC will review within thirty (30) days of receipt the backflow preventer inspection/test report forms submitted by pre-approved BPATs.

2. The District's CCCPC may accept reports that are signed by a BPAT not on the pre-approved certified BPAT list provided that the same information as listed in "Pre-Approval Qualifications" is also submitted to the District.

3. The District's CCCPC will provide follow-up on backflow assemblies and/or test reports that are deficient in any way.

4. The District's CCCPC may conduct follow up tests on backflow assemblies tested by a BPAT at the discretion of the District.

5. The District's CCCPC may require a BPAT to attend additional training, submit to re-examination or other demonstration of competency or any combination thereof, as may be deemed necessary by the District's CCCPC.

6. From time to time, the District's CCCPC may require that a BPAT provide a schedule or list of locations dates and approximate arrival times of when a BPAT is anticipated to perform work on District's service protection backflow assemblies. This will provide the CCCPC an opportunity to meet the BPAT at the site(s) and review the BPAT's performance, as it pertains to the District's CCCP.

7. The District's CCCPC does not need to make their presence known to the BPAT and may review the BPAT performance from a distance or through the use of video recording.

8. The District's CCCPC will report incidences of fraud or gross incompetence or negligence on the part of any BPAT or CCCPC to the District's General Manager and to the certifying entity, as well as any other agencies or authorities as deemed appropriate by the District's General Manager.

6. Backflow Prevention Assembly Testing.

A. Inspection and Testing of Backflow Preventers.

1. All backflow preventers that the District relies upon for protection of the water system will be subject to inspection and, if applicable, testing. This includes backflow preventers installed for in-premises protection that the District relies upon for protection of the water system.

2. Inspection and testing of backflow preventers will be as follows:

    a. The District's certified CCCS will inspect backflow preventers for proper application (i.e., to ensure that the preventer installed is commensurate with the assessed degree of hazard).

    b. The District's certified CCCS or BPAT will perform inspections of backflow preventers for correct installation.

c. A certified backflow prevention assembly tester will test all assemblies relied upon by the District to protect the public water system.

3. Customers with a backflow prevention assembly installed on their premise, that the District relies upon for protection of the potable water system, must have the assembly inspected and tested at least annually by a certified BPAT.

4. The use of any backflow prevention assembly required by CCCPH and the District must be in good repair. Assemblies which are found not to be in good repair must, at the Customer's expense, be repaired and re-tested as required immediately upon discovery. A backflow assembly test report must be filed with the District within five (5) days after such a test.

5. When assemblies are determined to be defective, they must be repaired or replaced by the Customer within fourteen (14) calendar days, or the District will discontinue water service. If service is discontinued, the Customer must pay the required fees as specified in the District's "Water Service Rates, and Rules Affecting Services".

B. FREQUENCY OF INSPECTION AND TESTING.

1. Inspection and testing of backflow preventers will be conducted:

   a. At the time of installation;

   b. Annually after installation;

   c. After a backflow incident;

   d. After repair, reinstallation, permanent relocation, or re-plumbing; and

   e. Any time the assembly is found to not be in good repair.

2. All AG separations must be inspected annually and after modifications to the installation.

3. The District may require a backflow preventer to be inspected and/or tested more frequently than once a year when it protects against a high-health hazard or when it repeatedly fails annual tests or inspections.

C. RESPONSIBILITY FOR INSPECTION AND TESTING.

1. The District will be responsible for inspection and testing of all District-owned backflow preventers and AGs.

2. The District will require the Customer to be responsible for inspection and testing of backflow preventers owned by the Customer. The Customer must employ, at the Customers expense, a certified BPAT pre-approved by the District to conduct the inspection and test within the time period specified in the testing notice sent by the District. The test report must be completed and signed by the BPAT, then returned to the District, before the due date specified by the District.

3. The Customer may request an extension of the due date for returning a test report by submitting a written request to the District. The District may grant one extension up to thirty (30) days.

D. NOTIFICATION OF INSPECTION AND/OR TESTING

1. The District will notify, in writing, all Customers who own backflow preventers that are relied upon to protect the public water system, that inspection and/or testing of their backflow preventer(s) is required. Notices will be sent out not less than 30 days before the due date of the inspection and/or test. The notice will also specify the date (no later than 30 days from the date of the notice) by which the inspection/test report must be received by the District. If the District has not received a passed test report in the designated time frame, the enforcement policies described herein may be applied.

E. APPROVED TEST PROCEDURES.

1. The District will require that all backflow preventer assemblies protecting the public water system be tested in accordance with approved test procedures as specified in CCCPH Article 4 3.4.1 (b) (1) (B) 4. Any proposal to use alternate test procedures must be approved by the District's CCCS.

F. BACKFLOW ASSEMBLY TEST REPORTS.

1. Generally, test results must be entered into the District's online database portal by the BPAT within five (5) calendar days of the test date; however, failing test results must be submitted within 24 hours of test date.

G. REPAIRS.

1. Any assembly that fails routine testing must be repaired and retested within fourteen (14) days of the initial test date.

2. The Customer must notify the District if repairs cannot be made within the specified period.

3. Only Original Equipment Manufacturer (OEM) parts may be used to repair backflow prevention assemblies. If OEM replacement parts are not available, then an approved backflow prevention assembly must be installed to replace the existing assembly.

4. The District will determine the level of risk the failed assembly presents to the water supply and, if necessary, discontinue water service.

5. Repairs will be made so that the backflow prevention assembly being repaired is returned to Original Manufacturer Specifications as indicated by the Manufacturer Flow Chart.

6. Pursuant to section 116875 of California Health and Safety Code (CHSC), any failed assembly that is not "lead-free" (≤0.25% lead[2]) and not specifically exempted by section 116875, must be replaced with an approved lead-free assembly rather than being repaired. If exempted by section 116875 of the CHSC, lead-free replacement/repair kits approved by USCFCCCHR must be used to repair the backflow prevention assembly. If the kit is not available, the device must be replaced with an approved lead-free assembly.

H. ENFORCEMENT.

1. To enforce this CCCPP, it may become necessary to discontinue water service through connection(s) to the premises, or premises under common control. In the event water service is discontinued, Kern County Environmental Health will be notified.

[2] Section 1417 of the Safe Drinking Water Act

2. Conditions that warrant discontinuance of service include but are not limited to the following:

   a. When the District identifies a water use that represents a clear and immediate hazard to the potable water supply that cannot be immediately abated.

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

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

   d. Refusal to inspect an AG separation.

   e. Refusal to install a required backflow prevention assembly.

   f. Refusal to test a backflow prevention assembly.

   g. Refusal to repair or replace a faulty backflow prevention assembly.

   h. Refusal to upgrade a backflow prevention assembly to the necessary level of protection.

   i. Any refusal to comply with the requirements set forth in the CCCPP.

   For conditions a. and c. above, the District will take the following steps:

      i. Make a reasonable effort to advise Customer of intent to terminate water service.

      ii. Terminate water supply and lock the service valve. The water service will remain inactive until correction of violation has been approved by the District.

   For conditions d. through i. the District will notify the Customer in writing specifying the corrective action needed and the time period in which it must be done. If no action is taken within the allowed time periods, water service may be terminated. The following notices shall be provided to Customer prior to termination:

      i. Disconnection Notice – The District will make reasonable, good faith effort to contact the customer by certified mail and/or hand delivery of written notice ten (10) business days before discontinuation.

      ii. 48-hour Notice – The District will make reasonable, good faith effort to contact the customer by telephone or in-person or posting in a conspicuous location at the premises if an assembly is in non-compliance of this plan.

3. When a Customer fails to send in the *inspection/test report* within 30 days after the due date specified, and the District has not approved an extension to the due date, the District will take the following enforcement action:

    a. The District will send a second notice giving the customer an additional fifteen (15) days to send in the inspection/test report.

    b. If the Customer has not sent in the inspection/test report within ten (10) days of the due date given in the second notice, the District will send a third notice (Disconnection Notice), by certified mail, and/or by hand delivery, giving the Customer an additional ten days to send in the report. The notice will also inform the Customer that failure to satisfactorily respond to this notice will result in water disconnection.

    c. The District will send copies of the third notice to the owner and occupants of the premises (if different from the Customer).

    d. If the Customer has not responded satisfactorily to the District within 15 days of the due date specified in the third notice, the District will discontinue water service as outlined above.

    e. If the Customer's water service is discontinued due to violations of this Plan, the Customer will be subject to District's Rules and Regulations, Rule No. 11 Discontinuance and Restoration of Service. Upon seeking renewed service from the District, the backflow prevention assembly being returned to service must be tested, in accordance with District requirements, and in proper working order.

4. When a Customer fails to send in the *repair/replacement inspection/test report* within 14 days after the initial test date indicated on the test form, and the District has not approved an extension to the due date, the District will take the following enforcement action:

    a. The District will send a second notice giving the Customer an additional 10 days to send in the passing inspection/test report.

    b. If the Customer has not sent in the passing inspection/test report within 10 days of the due date given in the second notice, the District will send a third notice (Disconnection Notice), by certified mail, or by hand delivery, giving the Customer an additional 10 days to send in the report. The notice will also inform the Customer that failure to satisfactorily respond to this notice will result in water disconnection.

    c. The District will send copies of the third notice to the owner and occupants of the premises (if different from the Customer).

    d. If the Customer has not responded satisfactorily to the District

within 10 days of the due date specified in the third notice, the District will implement discontinue water service as outlined above.

e. If the Customer's water service is discontinued due to violations of this Plan, the Customer will be subject to District's Rules and Regulations, Rule No. 11 Discontinuance and Restoration of Service. Upon seeking renewed service from the District, the backflow prevention assembly being returned to service must be tested, in accordance with District requirements, and in proper working order.

5. In addition to the grounds for termination of service set forth in this section, the District may terminate potable water service to any premises if: (1) a required backflow prevention assembly or AG is removed by the Customer; (2) the District finds evidence that an installed backflow prevention assembly or AG has been altered, bypassed or rendered ineffective; or (3) the District determines that the water use represents a clear and immediate hazard to the potable water supply.

6. If the District decides that termination of service is either too difficult or may pose a health issue, it may choose to have the necessary repairs, replacements, or installations completed by the District or a contractor and pass the cost for such service and an administrative penalty on to the Customer. The Customer will be notified in writing specifying the corrective actions being taken and time period in which it will be done. If no action is taken by the Customer, work will begin immediately. If the Customer fails to pay the cost and administrative penalty within 30 days of notification, District may cause a lien to be placed against the premise in accordance with the procedures set forth in Title 14 of the California Civil Code.

7. Any Customer aggrieved by a decision reached pursuant to the provisions of this CCCPP may file an appeal to District's General Manager.

8. The appeal must be (i) in writing; (ii) hand-delivered or mailed to the District's General Manger; and (iii) by the District's General Manger 48 hours before the day work is to commence.

9. The filing of a timely appeal will stay any work, pending a decision on the appeal by the District's General Manger or their designee.

10. The District's General Manager, working with the District's Board of Directors, will schedule a public hearing within 30 days of the submitted appeal, unless an extension is authorized by the appellant.

11. The following rules will apply to any appeal hearing required by this section: all parties involved will have the right to offer testimonial, documentary, and tangible evidence bearing on the issues, to be represented by counsel, and to confront and cross-examine witnesses. Any relevant evidence may be admitted if it is the sort of evidence upon which reasonable persons are accustomed to rely in the conduct of serious affairs. Formal rules of discovery do not apply to proceedings governed by this Section. Unless otherwise specifically prohibited by law, the burden of proof is on the Customer in any hearing or other matter under this Section.

12. The decision of the District's General Manger or his/her designee will be a final administrative order, with no further administrative right of appeal.

13. Upon finding by the District that a Customer has: (1) violated any provision or directive of the District pursuant to the CCCPP; (2) knowingly filed a false statement or report required pursuant to the CCCPP; or (3) bypassed or rendered inoperative any backflow prevention assembly installed under the provisions of the CCCPP, the District may issue an administrative order requiring that the violation be corrected and may issue a penalty of up to five hundred dollars ($500.00).

    Each day of a violation will constitute a separate violation.

    Notice of the fine will be served by certified mail with a description of the violation and supporting facts and the process to appeal the imposition of the penalty.

    Appeals must be requested in writing and must provide facts disputing the violation. Appeals must be addressed to the District's General Manager and must be received within ten days of the date appearing on the notice of the fine. The decision of the District's General Manager will be provided by certified mail. The decision will constitute a final administrative order with no additional administrative right of appeal.

    If said penalty is not paid within 30 days from the date appearing on the notice of the fine or the notice of determination from the District after the appeal hearing, the fine may be referred to a collection agency within or external to the District. In addition, any outstanding penalties must be paid prior to the issuance or renewal of any registration or certification.

14. Any person or persons who willfully fails to install, or permit to be installed, a backflow prevention assembly as required by District or who willfully bypasses, alters or refuses to maintain a backflow prevention assembly, shall be subject to those penalties set forth in the California Health and Safety Code, Section 116820.

I. FEES AND CHARGES.

1. To administer this Plan, the District may pass certain costs of performing activities onto the Customer as follows:

a. District's Cross-Connection Control Fee Schedule Backflow Testing Program

i. Restoration of Service - $50.00 (a separate deposit may be applicable)

ii. Relocation of Hydrant Meter - $50.00

iii. Backflow Assembly Test by District BPAT - $15.00
(Assessed upon installation and relocation of Hydrant meter)

iv. Backflow Assembly Testing Test Report Web Portal Entry - $10.00 per test will be charged to customers requiring backflow prevention equipment monitoring. The fee will cover the administrative cost of monitoring and database management. The fee will be applied and collected when Backflow Assembly Testing Test Reports are submitted.

7. RECORDKEEPING.

A. TYPES OF RECORDS AND DATA TO BE MAINTAINED.

1. The District will maintain the following records, as required by the CCCPH:

a. Service connections/customer premises information including:

i. Two most recent Hazard Assessments for each user premise;

ii. Required backflow preventer to protect the public water system;

iii. The most current cross-connection tests (e.g. shutdown test, dye test);

iv. If a user supervisor is designated for a user premise, the current contact information for the user supervisor and Customer, and any applicable training and qualifications as described by CCCPH section 3.2.2(f);

v. Descriptions and follow-up actions related to all backflow incidents;

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

current contract or agreement;

vii. The current Cross-Connection Control Plan as required in CCCPH section 3.1.4; and

viii. Any public outreach or education materials issued as required in CCCPH section 3.1.3.(a)(9) for the previous three calendar years.

2. Backflow preventer inventory and information including:

   a. For each AG installation the associated hazard or application and the location, owner, inspection dates, inspection results, person conducting inspection and as- built plans of the AG;

   b. Backflow assembly hazard, location, assembly description (type, manufacturer, make, model, size, and serial number), installation, inspection and test dates, test results and data, and person performing test;

   c. Results of all BPA field testing and AG and swivel-ell inspections 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; and

   d. Repairs made to, or replacement or relocation of, BPAs for the previous three (3) calendar years;

   e. Information on atmospheric vacuum breakers (AVB) and pressure vacuum breakers (PVB) used for irrigation system applications, including manufacturer, make, model, size, dates of installation and inspections, and person performing inspections.

   f. Records on all assemblies that protect the public water system from contamination. At a minimum, the District will maintain records on all premises containment assemblies required to protect the public water system. All records will be made available to the State Board upon request. Where applicable, the above information will also be maintained for backflow preventers installed for in-premises protection that are relied upon by the District to protect the public water system.

B. HOW RECORDS WILL BE MAINTAINED.

1. The District will maintain records using the following methods:

   a. Paper Records.

      i. Hazard Assessment

      ii. Test Report (Passing/Fail Results)

      iii. Device information (New, Repair, Replacement, Relocation)

      iv. Backflow Incident Report

   b. Proprietary computer database software program.

      i. XC2 Database and DataStream

      ii. Historical Data prior to January 1, 2025

      iii. Asset Information Management System (AIMS)

      iv. Device information (Mapped location, Model, Make, Size, Hazard, etc.)

      v. Syncta

      vi. Test Report (Passing/Fail Results)

      vii. Device information (Model, Make, Size, Hazard, etc.)

      viii. Device information (New, Repair, Replacement, Relocation, etc.)

      ix. Tester information (Certification, Test Gauge Kit)

   c. Internal Network Storage

      i. Hazard Assessment

      ii. Test Report (Passing/Fail Results)

      iii. Backflow Incident Report

      iv. Device information (New, Repair, Replacement, Relocation, etc.)

      v. Device information (Model, Make, Size, Hazard, etc.)

      vi. Tester information (Certification, Test Gauge Kit)

      vii. Public Outreach and Education Material

C. REPORTS TO BE PREPARED AND SUBMITTED TO SWRCB.

1. The District will prepare the following reports required by CCCPH including:

   a. Cross-connection control program activities report for the calendar year, to be sent to SWRCB when requested;

   b. Cross-connection control program summary information, when required, or when there are significant policy changes;

   c. Backflow incident reports to SWRCB; and

   d. Documentation when exceptions to mandatory premises containment are granted.

2. At a minimum, the District's CCCCS will prepare and sign the exceptions reports.

3. The District's CCCPC will prepare and sign all CCC-related reports required by CCCPH. Backflow Incident Response, Reporting and Notification.

8. BACKFLOW INCIDENT RESPONSE PROCEDURE.

1. The District will participate in developing a backflow incident response plan (Appendix H), that will be part of the water system's emergency response plan as required by CCCPH Article 5.

2. The District will consider any complaint or report of change in water quality as a possible incident of backflow and will investigate such complaint and/or report. If, upon such investigation, there is evidence that an incident of backflow has occurred, the District will:

   a. Review pressure and chlorine residual information in the vicinity of the potential incident of backflow; and

   b. Collect water quality samples from facilities that may be affected by the potential incident.

   If, based upon the results of the investigation described above, a potential incident of backflow has occurred, the District's CCCS will:

   a. Identify the source of contamination;

   b. Isolate the source of contamination and the affected area(s);

   c. Notify affected population;

   d. Notify and coordinate with other agencies, such as SWRCB, Local Administrative Authorities (LAAs), and the local health

jurisdiction;

e. Clean, flush, and other measures to mitigate and correct the problem;

f. Apply corrective actions to prevent future backflow occurrences; and

g. Document the investigation, and any response and follow-up activities.

D. BACKFLOW INCIDENT NOTIFICATION.

1. The District's CCCPC will notify the State Board of any known incident of backflow within 24 hours of the determination. If required by the SWRCB, the District will issue a Tier 1 public notification pursuant to California Code of Regulations (CCR), Title 22, Section 64463.1.

2. If required by the SWRCB, the District will submit, by a date specified by the SWRCB, 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 must contain, at a minimum, the information requested in CCCPH Appendix E, referenced herein as Appendix I of this Plan.

E. TECHNICAL RESOURCES.

1. The District will use the most recently published edition of the manual M14 Backflow Prevention and Cross-Connection Control Recommended Practices published by the American Water Works Association as a supplement to the "Backflow Incident Response Plan for West Kern Water District."

9. PUBLIC OUTREACH AND EDUCATION.

A. CUSTOMER EDUCATION.

1. The District will distribute with water bills (or some other means), at regular intervals, public education brochures to Customers. For residential customers, such brochures will describe the cross-connection hazards in homes and the recommended assemblies or devices that should be installed by the homeowner to reduce the hazard to the public water system. The education program will emphasize the responsibility of the Customer in preventing the contamination of the public water supply. District staff will produce the public education brochures, or the District will obtain brochures from:

a. American Water Works Association (AWWA)

b. California/Nevada Section of American Water Works Association (CA/NV-AWWA);

c. University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USC FCCCHR);

d. Other national backflow prevention associations, such as the American Backflow Prevention Association (ABPA); and/or

e. Other water utilities and agencies.

2. The information distributed by the District will include, but not be limited to, the following subjects:

a. Cross-connection hazards in general;

b. Irrigation system hazards and corrective actions;

c. Fire sprinkler cross-connection hazards;

d. Importance of annual inspection and/or testing of backflow preventers; and

e. Thermal expansion in hot water systems when backflow preventers are installed for premises containment.

3. The District will distribute information brochures to all Customers, at least once every three years, and to every new Customer at the time the water service application is signed.

B. PUBLIC OUTREACH.

1. The District may participate in other outreach activities including:

a. Distribution of cross-connection control information to hardware and plumbing stores serving the area; and

b. Participation in fairs, exhibits, and other events.

10. LOCAL ENTITY COORDINATION.

A. COORDINATION WITH LOCAL ADMINISTRATIVE AUTHORITY.

1. The CCCPH requires coordination between the District and Local Administrative Authorities (LAAs) in matters pertaining to cross-connection control.

2. The District will provide a copy of this CCCP to various entities with LAAs including; the City of Taft, City of Maricopa, Kern County Fire Department, Kern County Code Enforcement and others, as necessary. The District will inform the LAAs of any changes in policy or procedure that may impact the LAA.

3. The District will provide information to the LAAs in a timely manner regarding any:

    a. Requirement imposed on a residential customer for the installation of a DC or an RP on the service, with a description of the cross-connection hazard identified;

    b. Upgrade of the premises containment backflow preventer, i.e., from a DC to an RP;

    c. Action taken to discontinue water service to a Customer; and

    d. Backflow incident known by the District to have contaminated the public water system or a Customer's plumbing system.

5. OTHER PROVISIONS

1. RECYCLED WATER.

    At this time, there are no potential cross-connections between the District's water system and tertiary recycled water. In the event that a cross-connection between the District's water system and tertiary recycled water is proposed, the District will make all cross-connection control requirements mandated by the Permitting Authority part of the written CCCPH and comply with such additional requirements.

2. PROHIBITION OF RETURNED USED WATER.

    1. It is the policy of the District to (i) prohibit the intentional return of used water to the District's distribution system by any customer served by the public water system; and (ii) require that all customers with multiple connections, where the hydraulics permit the potential return of used water, to install a backflow preventer (DC or RP) commensurate with the degree of hazard at each point of connection.

    2. "Used water" is defined as "water that has left the control of the District." This includes water used for heating and cooling purposes and water that may flow back into the District's distribution system from Customers with multiple connections.

3. UNAPPROVED AUXILIARY SUPPLIES.

    1. All water supplies other than those owned by the District are considered "unapproved auxiliary supplies," as defined in the CCCPH. The District will require backflow protection for customers with auxiliary supplies on their premises as follows: per Appendix F, the District will require the installation of an RP for premises containment at the service connection to any customer having an unapproved auxiliary supply on the premises that is interconnected with the District's water system whether or not there is a physical connection

between the unapproved auxiliary supply and the District's water system.

4. TANKER TRUCKS.

    1. The District may allow tanker trucks to obtain water from the District's water system under the following conditions:

        a. The tanker truck is equipped with an approved AG or an approved RP with a current satisfactory inspection or test report.

        b. The tanker truck obtains water from District-designated watering points only. These watering points will be equipped with District approved backflow preventers.

    2. The District will not supply tanker trucks water through temporary connections, such as those used for construction projects or main disinfection, except through a backflow preventer arrangement approved by the District. The applicant for the temporary connection must provide the District with documentation that the backflow preventer is an approved model and has passed an inspection and/or test within the past 12 months and/or upon relocation, whichever is more recent.

5. ADDITIONAL CROSS-CONNECTION CONTROL REQUIREMENTS FOR RECLAIMED WATER.

    1. At this time the District does not receive or distribute reclaimed water. In the event that reclaimed water use is proposed within the District's service area, the District will make all cross-connection control requirements mandated by the Permitting Authority part of the written CCCPH and comply with such additional requirements.

6. PLANNING AND OPERATIONS PROGRAM REQUIREMENTS

1. CONSIDERATIONS.

The District will consider the requirements and consequences of the CCCPP on the District's planning and operations requirements. Such considerations include, but are not limited to, ensuring:

1. And promoting adequate communication between CCCPP personnel and other District staff;

2. That adequate training is provided to all District staff to recognize potential cross-connection control problems;

3. That cross-connection issues be considered in water quality investigations;

4. That the design of the District's water distribution system makes adequate provisions for expected head losses incurred through the installation of backflow assemblies;

5. That CCCPP personnel be consulted in the design of water and wastewater treatment facilities and when proposals are made to receive or distribute reclaimed water;

6. That operations under normal and abnormal conditions do not result in excessive pressure losses; and

7. That adequate financial and administrative resources are available to carry out the CCCPP.

Appendix A DEFINITIONS

"**Air-gap separation**" or "**AG**" means a physical vertical separation of at least two (2) times the effective pipe diameter between the free-flowing discharge end of a potable water supply pipeline and the flood level of an open or non-pressurized receiving vessel, and in no case less than one (1) inch.

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

"**Auxiliary water supply**" means a source of water, other than an approved water supply, that is either used or equipped, or can be equipped, to be used as a water supply and is located on the premises of, or available to, a Customer.

"**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 Customer or available to the Customer, and any source or distribution system containing liquid, gas, or other substances not from an approved water supply.

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

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

"**Double check detector backflow prevention assembly**" or "**DCDA**" means a double check valve backflow prevention assembly that includes a bypass with a water meter and double check backflow prevention assembly, with the bypass's water meter

accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections. See Diagram 1, Appendix C.

"**Double check detector backflow prevention assembly – type II**" or "**DCDA-II**" means a double check valve backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. This type of assembly may only be used to isolate low hazard cross-connections. See Diagram 2, Appendix C.

"**Double check valve backflow prevention assembly**" or "**DC**" means an assembly consisting of two independently-acting internally-loaded check valves, with tightly closing shut-off valves located at each end of the assembly (upstream and downstream of the two check valves) and fitted with test cocks that enable accurate field testing of the assembly. This type of assembly may only be used to isolate low hazard cross-connections. See Diagram 3, Appendix C.

"**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.

"**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.

"Noncommunity water system" means a public water system that is not a community water system.

"Nontransient noncommunity water system" means a public water system that is not a community water system and that regularly serves at least 25 of the same persons over six months per year.

"**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 Customer's water supply from the public water system's distribution system.

"**Pressure vacuum breaker backsiphonage prevention assembly**" or "**PVB**" means an assembly with an independently-acting internally-loaded check valve and an independently-acting loaded air inlet valve located on the discharge side of the check valve; with test cocks and tightly closing shutoff valves located at each end of the assembly that enable accurate field testing of the assembly. This type of assembly may only be used for protection from backsiphonage and is not to be used to protect from backpressure. See Diagram 4, Appendix C.

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

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

"**Reduced pressure principle backflow prevention assembly**" or "**RP**" means an assembly with two independently acting internally-loaded check valves, with a hydraulically operating mechanically independent differential-pressure relief valve located between the check valves and below the upstream check valve. The assembly shall have shut-off valves located upstream and downstream of the two check-valves, and test cocks to enable accurate field testing of the assembly. See Diagram 5, Appendix C.

"**Reduced pressure principle detector backflow prevention assembly**" or "**RPDA**" means a reduced pressure principle backflow prevention assembly that includes a bypass with a water meter and reduced pressure principle backflow prevention assembly, with the bypass's water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. See Diagram 6, Appendix C.

"**Reduced pressure principle detector backflow prevention assembly – type II**" or "**RPDA-II**" means a reduced pressure principle backflow prevention assembly that includes a bypass around the second check, with the bypass having a single check valve and a water meter accurately registering flow rates up to two gallons per minute and visually showing a registration for all rates of flow. See Diagram 7, Appendix C.

"**Spill-resistant pressure vacuum breaker backsiphonage prevention assembly**" or "**SVB**" means an assembly with an independently-acting internally-loaded check valve and an independently-acting loaded air inlet valve located on the discharge side of the check valve; with shutoff valves at each end and a test cock and bleed/vent port, to enable accurate field testing of the assembly. This type of assembly may only be used for protection from backsiphonage and is not to be used to protect from backpressure. See Diagram 8, Appendix C.

"**State Water Board**", unless otherwise specified, means the State Water Resources Control Board or the local primacy agency having been delegated the authority to enforce the requirements of the CCCPH by the State Water Resources Control Board.

"**Swivel-Ell**" means a reduced pressure principle backflow prevention assembly combined with a changeover piping configuration (swivel-ell connection) designed and constructed pursuant to this Chapter. See design and construction criteria, as well as Diagrams 9a and 9b, Appendix C.

"**Transient noncommunity water system"** means a noncommunity water system that does not regularly serve at least 25 of the same persons over six months per year.

"**User premises**" means the property under the ownership or control of a Customer 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 Customer'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 Customer 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.

Appendix B ORDINANCE

BEFORE THE BOARD OF DIRECTORS
OF
WEST KERN WATER DISTRICT

In the Matter of:	**)**
	)
Rescinding Ordinance No. 02-1)	**ORDINANCE NO. 25-01**
And Implementing a Cross-	**)**
Connection Control Program Plan	**)**

WHEREAS, West Kern Water District (**District)** provides water services to municipal and industrial customers in the cities of Taft and Maricopa, and the communities of McKittrick, Derby Acres, Fellows, Valley Acres, Dustin Acres, and Tupman; and

WHEREAS, the District maintains certain standards and procedures to protect the safety of its water supply, including certain standards and procedures regarding the establishment of water connections; and

WHEREAS, on July 26, 1994, the District adopted Ordinance 94-1 regarding the control of backflow and cross-connections, in accordance with regulations adopted pursuant to Title 17 of the Administrative Code regarding "Regulations Relating to Cross-Connections;" and

WHEREAS, on May 28, 2002, the District adopted Ordinance No. 02-1 amending Ordinance 94-1 regarding the control of backflow and cross-connections, to recognize the American Backflow Prevention Association (ABPA) as a certified backflow testers; and

WHEREAS, on December 19, 2023, the State Water Resources Control Board (**SWRCB**) adopted new cross-connection control standards through its Cross-Connection Control Policy Handbook (**CCCPH**) which became effective July 1, 2024; and

WHEREAS, to comply with these new standards, the District, must submit a Cross-Connection Control Program Plan (**CCCPP**) for SWRCB review and approval by July 1, 2025; and

WHEREAS, it is the District's intent that the CCCPP, attached hereto and incorporated herein as **Exhibit A**, supersede and replace those standards and procedures set forth under Ordinance No. 02-1.

NOW BE IT ORDAINED by the Board of Directors of West Kern Water District as follows:

A. The Cross-Connection Control Program Plan, attached hereto and incorporated herein as **Exhibit A**, is hereby adopted and approved, subject to final approval by the State Water Resources Control Board. Upon such final approval, the General Manager or his designee is hereby authorized and directed to update any corresponding District Rules and Regulations, policies,

guidelines, or applications affected by the adoption and approval of the CCCPP.

B. This Ordinance 25-01 shall take full force and effect immediately upon adoption. Within fifteen (15) days of such adoption, the General Manager or his designee is hereby directed to:

1. Publish a summary of this Ordinance with the names of those directors voting for and against the Ordinance in the Daily Midway Driller, a newspaper of general circulation, printed, and published in the City of Taft; and

2. Post a certified copy of the full text of the Ordinance, including the CCCPP, along with the names of those directors voting for and against the Ordinance, in the District Office located at 800 Kern Street, Taft, California 93268.

C. Ordinance No. 02-1 is hereby amended, superseded, and replaced in its entirety with this Ordinance 25-01.

PASSED, APPROVED, and **ADOPTED** by the Board of Directors of West Kern District this _____ day of June 2025 pursuant to the following roll call vote:

AYES:	President
	Director
	Director
	Director
	Director
NOES:	None
ABSTAIN:	None
ABSENT:	None

SCOTT D. NIBLETT, President of the Board of Directors of the West Kern Water District

SECRETARY'S CERTIFICATE

I, GREG A. HAMMETT, being the appointed Secretary of the **WEST KERN WATER DISTRICT,** do hereby certify that the above and foregoing **Ordinance 25-01** was duly adopted by the Board of Directors of said District at a legally convened meeting of said Board held on this _____ day of June 2025, that the above and foregoing is a full, true, and correct copy of **Ordinance 25-01,** and that the same has not been amended or repealed.

ATTEST:

_____

GREG A. HAMMETT, Secretary of the Board of Directors of the West Kern Water District

Appendix C WATER SERVICE APPLICATION

Proposed Water Service Application

WEST KERN WATER DISTRICT

Water Service Application

Lot No. _____

ENTERED

CUSTOMER INFORMATION

Name of applicant _____ Date _____

Service address _____ City _____ Zip _____

Mailing address (if different from service address) _____ City _____ Zip _____

Driver's License No. _____ Phone ( ) _____ E-mail address _____

Applicant Status ☐ Owner ☐ Tenant ☐ Agent ☐ Employee

May we e-mail water-related notices? ☐ Yes ☐ No

TO: WEST KERN WATER DISTRICT, TAFT, CALIFORNIA. I HEREBY APPLY FOR WATER SERVICE AT THE ABOVE PREMISES AND I AGREE TO USE AND PAY THEREFORE IN ACCORDANCE WITH THE ***WATER SERVICE RATES, RULES & REGULATIONS*** OF THE WEST KERN WATER DISTRICT.

Signature _____ Print name _____

CONDITIONS FOR PROVIDING SERVICE

In addition to those other requirements for service set forth in the District's Rules and Regulations, Ordinance 25-01 and District's Cross-Connection Control Program Plan (CCCPP), the West Kern Water District (District) shall provide water service to new and existing Customers pursuant to the following terms and limitations:

1. The Customer agrees to take all measures necessary to prevent the contamination of the Customer's potable water system and the District's System that may occur from backflow through a cross-connection. These measures shall include, among other things, the prevention of backflow under any backpressure or backsiphonage condition, including the disruption of the water supply from the District's System that may occur during routine system maintenance or during emergency conditions, such as a water main break.

2. The Customer agrees to operate, and maintain, at all times, their system in compliance with the current edition of the California Plumbing Code (**CPC**) having jurisdiction as it pertains to the prevention of contamination and protection from thermal expansion, due to a closed system that could occur with the present or future installation of backflow preventers on the Customer's potable water system and/or at plumbing fixtures thereat.

3. For cross-connection control or other public health-related surveys, the Customer agrees to provide to authorized representatives of the District free access to all parts of the Customer's potable water system during reasonable working hours of the day for routine hazard assessments and at all times during emergencies.

   Where agreement for free access for the District's hazard assessment is ***denied***, the District may supply water service provided that premises containment is achieved through an approved reduced-pressure principle backflow assembly (RP).

4. The Customer agrees to install all backflow prevention assemblies requested by the District and to maintain those assemblies in good working order. The assemblies shall be of a type, size, and make approved and acceptable to the District's CCCPP. The assemblies shall be installed in accordance with the recommendations given in the most recently adopted California Code of Regulations (CCR) editions of the California Plumbing Code (CPC), of the California Cross-Connection Control Policy Handbook (CCCPH), current manufacturer standards and in accordance with the District's construction standards and specifications and the District's CCCPP.

   a. An approved backflow prevention assembly shall be installed on each service line to a Customer's potable water system as close as practical to Customer's service connection but, in all cases, before the first branch line leading off the service line wherever the following conditions exist:
      i. In the case of premises having an auxiliary water supply which is not or may not be of safe bacteriological or chemical quality and which is not acceptable as an additional source by the District, the Public Water System (PWS) shall be protected against backflow from the premises by installing an approved backflow prevention assembly commensurate to the degree of hazard in the service line as specified in the CCCPP.
      ii. In the case of premises on which any industrial fluids or any other objectionable substance is handled in such a fashion as to create an actual or potential hazard to the PWS, the public system shall be protected against backflow from the premises by installing an approved backflow prevention assembly commensurate to the degree of hazard in the service line as specified in the CCCPP. This shall include the handling of process waters and waters originating from the District's System which have been subject to deterioration in quality.
      iii. In the case of premises having (1) internal cross-connections that cannot be permanently corrected or protected against, or (2) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not dangerous cross-connections exist, the PWS shall be protected against backflow from the premises by installing an approved backflow prevention commensurate to the degree of hazard assembly in the service line as specified in the CCCPP.

5. The Customer agrees to:
   a. Have all assemblies (including but not limited to RPs) and/or double check valve backflow prevention assembly(s) (DC)) that the District relies upon to protect the public water distribution system tested upon installation, annually thereafter and/or more frequently if requested by the

District, after repair, and after relocation;

b. Have all testing done by a District-approved and currently ANSI certified Backflow Prevention Assembly Tester (**BPAT**);

c. Have all assemblies tested in accordance with approved test procedures as specified in the CCCPH Article 4 3.4.1 (b) (1) (B) 4.; and

d. Submit to the District's online portal the annual test report(s) within five (5) calendar days of testing.

6. Customer agrees to bear all costs for the aforementioned installation, testing, repair, maintenance and replacement of the approved assemblies (including but not limited to RP, reduced pressure principle detector prevention backflow prevention assembly (RPDA), DC or double check valve detector prevention assembly (DCDA)) installed to protect the District's System.

7. If required by the District, the Customer agrees to submit to the District plumbing plans of the premises.

8. Within forty-five (45) days of a request by the District, a residential Customer shall agree to complete and submit to the District a "Water Use Questionnaire" for the purpose of surveying the health hazard posed by the Customer's potable water system on the District's System.

9. The Customer agrees to obtain prior approval from the District for all changes in water use, and alterations and additions to the plumbing system, and shall comply with any additional requirements imposed by the District for cross-connection control.

10. The Customer agrees to immediately notify the District and the local health jurisdiction of any backflow incident occurring within the customer's premises (i.e., entry of any contaminant/pollutant into the drinking water) and shall cooperate fully with the District to determine the reason for the backflow incident.

11. The Customer acknowledges the right of the District to discontinue the water supply within 48 hours of reasonable, good faith effort to contact the Customer by telephone or in person or posting in a conspicuous location at the premises, or a lesser period of time if required to protect public health, if the Customer fails to cooperate with the District in the hazard assessment of premises, in the installation, maintenance, repair, inspection, or testing of backflow prevention assemblies or air gaps required by the District, or in the District's effort to contain a contaminant or pollutant that is detected in the Customer's potable water system.

Without limiting the generality of the foregoing, in lieu of discontinuing water service, the District may install an RP on the customer service pipe to provide premises containment, and recover all costs for the installation, appurtenances, and enclosure from the Customer as fees and charges for water. Customer shall bear all costs for subsequent testing, maintenance, and repair of the assembly. The failure of the Customer to pay these fees and charges may result in termination of water service in accordance with the District's CCCPP and Rules and Regulations Rule No. 11 Discontinuance and Restoration of Service. .

12. The District shall require premises containment for a Customer that is of the high-hazard type or category requiring "Mandatory Premises containment" established by the CCCPH regulations Appendix D.

    Where the District imposes mandatory premises containment in compliance with CCCPH regulations or agrees to the Customer's voluntary premises containment through the installation of a RP immediately downstream of the District's water meter, the Customer acknowledges their obligation to comply with the other cross-connection control regulations having jurisdiction (i.e., CPC). Although the District's requirements for installation, testing, and repair of backflow assemblies may be limited to the Air Gaps (AG), DCs and RPs used for premises containment, the Customer agrees to the other terms herein as a condition of allowing a direct connection to the District's service pipe.

13. The Customer agrees to indemnify and hold harmless the District for all contamination of the Customer's potable water system or the District's System that results from an unprotected or inadequately protected cross connection within the Customer's premises. This indemnification shall pertain to all backflow conditions that may arise from the District's suspension of water supply or reduction of water pressure, recognizing that the AG separation otherwise required would require the Customer to provide adequate facilities to collect, store, and pump water for their premises.

14. The Customer agrees that, in the event legal action is required and commenced between the District and the Customer to enforce the terms and conditions herein, the substantially prevailing party shall be entitled to reimbursement of all incurred costs and expenses including, but not limited to, reasonable attorney's fees as determined by the court.

15. The Customer acknowledges that the District's hazard assessment of a Customer 's premises is for the sole purpose of establishing the District's minimum requirements for the protection of the public water supply system, commensurate with the District's assessment of the degree of hazard.

16. It shall not be assumed by the Customer or any regulatory agency that the District's hazard assessment, requirements for the installation of backflow prevention assemblies, lack of requirements for the installation of backflow prevention assemblies, or other actions by the District's personnel constitute an approval of the Customer's potable water system or an assurance to the Customer of the absence of cross connections therein.

17. The Customer acknowledges the right of the District, in keeping with changes to California State regulations, industry standards, or the District's risk management policies, to impose retroactive requirements for additional cross-connection control measures.

18. The State Water Resource Control Board (SWRCB), and District may, at their discretion, require a Customer to designate a User Supervisor when the Customer's premises has a multi-piping system that conveys various types of fluids and where changes in the piping system are frequently made.

The District will record the Customer's agreement to the above terms for service on an "Application for Water Service," "Application for Change of Water Service," or other such form prepared by the District and signed by

the Customer.

OFFICE USE ONLY

ACCOUNTING/ENGINEERING DEPARTMENT

ACCOUNT NO. _____ **SB LOT NO.** _____ **SERVICE ADDRESS** _____

APN _____ **DEPOSIT NUMBER** _____ **DEPOSIT AMOUNT** _____

TYPE OF SERVICE ☐ NEW SET ☐ RECONNECT ☐ UPGRADE ☐ METER DROP ☐ HYDRANT METER

PURPOSE ☐ RESIDENTIAL ☐ COMMERCIAL ☐ INDUSTRIAL ☐ LANDSCAPE ☐ FIRE PROTECTION ☐ OTHER _____

CREATED BY _____ **DATE** _____

CUSTOMER SERVICE TECH/FIELD SERVICES TECH/T&D DEPARTMENT

REMOVED METER # _____ **SIZE** ☐ ¾" ☐ 1" ☐ 2" ☐ " **MAKE** ☐ BADGER **READ** _____

NEW METER # _____ **SIZE** ☐ ¾" ☐ 1" ☐ 2" ☐ " **MAKE** ☐ BADGER **READ** _____

RT-SEQ _____ **ENDPOINT/MXU #** _____ **MXU ACTIVATED** ☐ YES ☐ NO

LATITUDE 35._____ **LONGITUDE** -119._____

CUSTOMER SERVICE LINE MATERIAL ☐ PVC ☐ STEEL ☐ GALV ☐ COPPER ☐ POLY ☐ OTHER _____ **SIZE** ☐ ¾" ☐ 1" ☐ 2" ☐ "

DISTRICT SERVICE LINE MATERIAL ☐ PVC ☐ STEEL ☐ GALV ☐ COPPER ☐ POLY ☐ OTHER _____ **SIZE** ☐ ¾" ☐ 1" ☐ 2" ☐ "

MOBILE MAP METER LOCATION VERIFIED (AIMS) ☐ YES ☐ NO IF ***NO***, PLEASE PROVIDE MAP DRAWING TO ENGINEERING

INSTALLED BY (PRINT) _____ **DATE OF INSTALL** _____

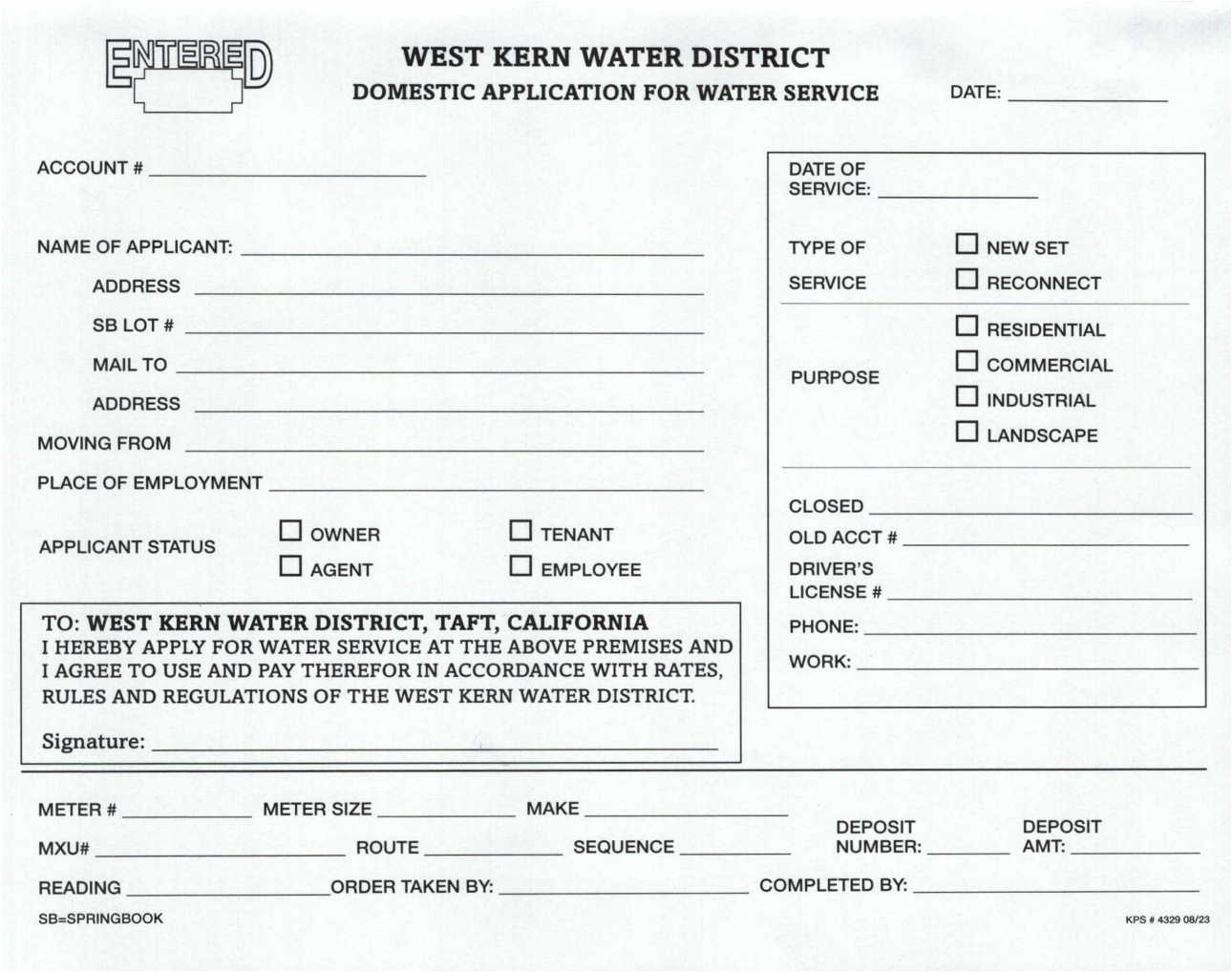
FIELD SERVICES DEPARTMENT

BACKFLOW PROTECTION REQUIRED ☐ YES ☐ NO **BACKFLOW TYPE** ☐ RP ☐ PVB ☐ DC ☐ DCDA ☐ RPDA ☐ AVB ☐ OTHER

REVIEWED BY (PRINT) _____ **DATE** _____

Original: Acct, CC: Job File, Regulatory Administrator, Ops Coordinator

Existing Water Service Application



ENTERED

WEST KERN WATER DISTRICT

DOMESTIC APPLICATION FOR WATER SERVICE

DATE: _____

ACCOUNT # _____

NAME OF APPLICANT: _____

ADDRESS _____

SB LOT # _____

MAIL TO _____

ADDRESS _____

MOVING FROM _____

PLACE OF EMPLOYMENT _____

APPLICANT STATUS ☐ OWNER ☐ TENANT ☐ AGENT ☐ EMPLOYEE

DATE OF SERVICE: _____

TYPE OF SERVICE ☐ NEW SET ☐ RECONNECT

PURPOSE ☐ RESIDENTIAL ☐ COMMERCIAL ☐ INDUSTRIAL ☐ LANDSCAPE

CLOSED _____

OLD ACCT # _____

DRIVER'S LICENSE # _____

PHONE: _____

WORK: _____

TO: **WEST KERN WATER DISTRICT, TAFT, CALIFORNIA**
I HEREBY APPLY FOR WATER SERVICE AT THE ABOVE PREMISES AND I AGREE TO USE AND PAY THEREFOR IN ACCORDANCE WITH RATES, RULES AND REGULATIONS OF THE WEST KERN WATER DISTRICT.

Signature: _____

METER # _____ METER SIZE _____ MAKE _____

MXU# _____ ROUTE _____ SEQUENCE _____

DEPOSIT NUMBER: _____ DEPOSIT AMT: _____

READING _____ ORDER TAKEN BY: _____ COMPLETED BY: _____

SB=SPRINGBOOK

KPS # 4329 08/23

Appendix D SAMPLE HAZARD ASSESSMENT

West Kern water district

CROSS-CONNECTION CONTROL PROGRAM
FIELD SURVEY FORM

YOUR NAME _____ DATE _____

LOCATION _____

	WATER USE	DEG OF HAZARD **	CROSS-CONN		TYPE OF PROTECTION*	PROTECTION				INSTALLATION COMMENTS
			Direct	Indirect		Approved Yes	Approved No	Adequate Yes	Adequate No	
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

***Detailing of Protection**

	MAKE	MODEL	SIZE	SERIAL NO.	COMMENTS
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**** Detailing of Hazards (i.e., chemicals, etc.)**

1		6	
2		7	
3		8	
4		9	
5		10	

Code References

1		6	
2		7	
3		8	
4		9	
5		10	

Conclusion:

Include any sketches, which may be necessary, (use the back of this form for sketches.)

FCCCHR Program Specialist Training Course – Field Survey Form – 2020.09.12

Sketches

Appendix E WATER SURVEY QUESTIONNAIRE

Commercial/Residential Service Backflow Survey

Please complete this form and return, via the pre-postage envelope provided or to the District Office, located at 800 Kern St, Taft, CA 93268. If you have any questions, please call us at (661) 763-3151.

Customer Information

Customer Name (Print): _____ Date: _____

Service Address: _____ City: _____

Contact Name: (If different from above) _____

Mailing Address: _____

Phone: _____ Alternate Phone: _____

E-mail address: _____

Property Information (please check one)

What type of property is this? ☐ Commercial ☐ Residential

Is there an irrigation system (Sprinklers for grass, trees, etc.) on the property? ☐ Yes ☐ No
If yes, do you have a device pictured to the left ☐ Yes ☐ No

Is there an evaporative cooler (swamp/water cooler) on the property? ☐ Yes ☐ No
If yes, how many? _____
Approximate size of unit in CFM *(Cubic Feet per Minute)*: _____

Is there an Air Conditioner on the property? ☐ Yes ☐ No
If Yes, how many? _____

Is there a swimming pool on the property? ☐ Yes ☐ No

Is there a boiler on the property? ☐ Yes ☐ No
(a boiler is a sealed vessel where water is converted to steam; does NOT refer to a water heater)

Is there a cooling tower/chiller on the property? ☐ Yes ☐ No
(cooling system used for industrial purposes to cool hot water, does NOT refer to air-conditioning unit)

Is there fire protection (Sprinklers) and/or private fire hydrant(s) on the property? ☐ Yes ☐ No

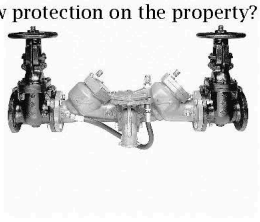
Is there non-potable or recycled water, grey or rainwater recovery on your property? ☐ Yes ☐ No

Do you store hazardous chemicals on-site (other than household cleaning agents)? ☐ Yes ☐ No

Is there equipment that requires the use of water (*steam cleaner, Solar hot water heaters)*? ☐ Yes ☐ No
If yes, please explain: _____
_____

Is there existing backflow protection on the property? ☐ Yes ☐ No

Some photo examples:



Use QR code to complete survey online or visit
https://www.surveymonkey.com/r/Survey_Eng_WKWD

Appendix F CALIFORNIA CROSS CONNECTION CONTROL POLICY HANDBOOK APPENDIX D: HIGH HAZARD PREMISES

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. Incarcération 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.

(+++) 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 G FACILITIES & ACCOUNTS REQUIRING PROTECTION

- Automotive Repair and Service Facilities – RP
- Autopsy Facilities – RP
- Auxiliary Water Systems (residential and non-residential)– RP
- Bars - RP
- Beverage Bottling Plant – RP
- Breweries – RP
- Buildings
    - Any building with sewage pumps or ejectors – RP
    - Any building containing non-potable water reuse systems utilizing pumps –RP
    - Any building containing mechanical equipment using chemicals with a potable water makeup line connected to the mechanical equipment. – RP
    - Any building containing a carbonator (soft drink dispenser) -RP
    - Any non-residential or non-single family residential with an ornamental fountain– RP
    - Multi-storied building with over 40 feet in height from service connection or that uses booster pumps or elevated storage tank to distribute water on the premises – RP
    - Any commercial structure in which the specific business activity cannot be ascertained or is subject to change without a building permit - RP
- Fire Sprinkler Systems. (Retrofitting existing fire sprinkler systems shall require the Customer to provide the City, Kern County Fire Department and District with an updated hydraulic analysis to certify proper system operation with the additional pressure loss. The Public Works Department, in addition to the Fire Department, shall review and approve all applications for construction or retrofit of fire sprinkler systems.)
    - Commercial Fire Sprinkler Systems
        - Systems utilizing only the District water supply –DC
        - Systems utilizing the District water supply and that also contain chemical additives, on site water storage, auxiliary water supplies or fire booster pumps – RP
        - Existing systems with a single detector check will not require an immediate retrofit provided the check valves are tested in accordance with NFPA 25 requirements and do not require repair or replacement. If the existing single detector check does not meet NFPA 25 requirements and/or requires repair or replacement then a DC shall be installed.
    - Residential Fire Sprinkler Systems
        - Systems utilizing only the District water supply through a combination service connection (domestic and fire) – DC
        - Systems utilizing the District water supply through a combination service connection (domestic and fire) and that also contain chemical additives, water storage on the premises, auxiliary water supplies or fire booster pumps – RP
        - Systems that are constructed using potable water piping in a complete flow through design (no dead ends) to prevent stagnant water and utilizing on the District water supply may be protected with a single spring-loaded check at the internal point of connection. This provision does not apply to parcels with more than one service connection.

- Chemical Plants – Any premises, where the manufacturing, storing, compounding, or processing of chemicals occurs. Where chemicals are used as additives in the processing of products.- RP
- Commercial Kitchens or Food Preparation Facilities - RP
- Convalescent Homes - RP
- Dairy Processing Plants - RP
- Dental Clinics - RP
- Dry Cleaning Facilities – RP
- Fuel Storage or Dispensing Facilities - RP
- Film Processing Facilities – RP
- Florists - RP
- Grocery Stores – RP
- Hazardous or potentially hazardous treatment processes with pumping equipment. -RP
- Hospitals – RP
- Ice Manufacturing Plants – RP
- Indoor Fitness facilities with a Spa or Pool – RP
- Irrigation systems with capabilities for injecting fertilizers, or hazardous chemicals. –RP
- Irrigation systems only single use meter – RP
- Laboratories – including, but not limited to, teaching institutions, biological and analytical facilities.- RP
- Laundries (Commercial) – RP
- Massage Therapy Clinics and Spas - RP
- Medical Building and Clinics – RP
- Metal Manufacturing, Cleaning, Processing or Fabricating Plants - RP
- Morgues – RP
- Mortuaries – RP
- Multiple Services: Includes two or more interconnected services provided by one or more water suppliers to a single Owner and/or Operator complex – RP
- Nursing Homes - RP
- Oil/Gas Production, Storage or Transmission premises – RP
- Paper and Paper Products Manufacturing Plants – RP
- Pet Stores – RP
- Plastic Manufacturing, Extruding and Injection Molding – RP
- Plating Plants – RP
- Portable Spray or Cleaning Equipment which can be connected to the District water system – RP
- Power Generation Facilities - RP
- Public or Commercial Swimming Pool – RP
- Radioactive Materials or Substances processing or storage – AG
- Recycled Water – This includes premises where recycled water is used with no interconnection to the District water system – RP
- Restaurant - RP
- Restricted, Classified, or Other Closed Facilities – RP
- Rubber Manufacturing – RP
- Salon, Hair and/or Nails - RP
- Sand and Gravel Plants – RP
- Sanitariums - RP
- Schools, Colleges and University – RP
- Sewer Treatment Facilities- AG

- Solar Heating
- Solar collection systems that contain any hazardous materials and have a direct connection to the District water system. – RP
- Solar system that is once through such as domestic hot water systems do not require protection.
- Tank Trucks – AG
- Vehicle Washing Facilities – RP
- Veterinary Facilities, Kennels, Animal Boarding- RP

Appendix H BACKFLOW INCIDENT REPORT PLAN

Backflow Incident Response Plan

A. General

This Backflow Incident Response Plan should be considered a supplement to the District's Emergency Response Plan.

The District will immediately begin a backflow incident investigation whenever the initial evaluation of a water quality complaint indicates that:

1. A backflow incident has occurred (i.e., drinking water supply has been contaminated) or may have occurred; or
2. The complaint can't be explained as a "normal" aesthetic problem.

Also, whenever a water main break (or power outage for pumped systems) causes a widespread loss of water pressure in the system (creating backsiphonage conditions), the District will initiate a check of distribution system water quality as a precursor to the need for a backflow incident investigation.

Cross Connection Control Policy Handbook (CCCPH) requires Districts to notify State Water Resources Control Board (SWRCB), the Local Administrative Authority (LAA) and local health jurisdiction as soon as possible, but no later than the end of the next business day when a backflow incident contaminates the potable water supply (in the distribution system and/or in the customer's potable water plumbing system). A list of emergency contact telephone numbers will be included at the beginning of the District's O&M Manual, so that the information is readily available when an incident occurs.

The investigation will be made by or initially led by the certified Cross-Connection Control Specialist (CCCS) employed by the District. The investigation team may include state health (regional) staff, local health personnel and/or local plumbing inspectors.

Districts can get more detailed guidance on how to respond to a backflow incident from the CCCPH.

B. Short List of Tasks

The following short list of tasks will be used as initial guidance for dealing with backflow incidents.

Note: the water system is referred to as the District in the short task list.

1. Customer Notification
    a. As soon as possible, the District will notify customers not to consume or use water.
    b. The District will start the notification with the customers nearest in location to the assumed source of contamination (usually the customer(s) making the water quality complaint(s)).
    c. The District will inform the customer about the reason for the backflow incident investigation and the District's efforts to restore water quality as soon as possible.

d. The District will let the customer know that customers will be informed when they may use water, the need to boil water used for consumption until a satisfactory bacteriological test result is obtained from the lab, etc.

e. Where a customer cannot be contacted immediately, the District will place a written notice on the front door handle, and a follow-up visit will be made to confirm that the customer received notice about the possible contamination of the water supply.

f. When dealing with a backflow incident, the District will let customers know that it could take several days to identify the source and type of contaminant(s) and to clean and disinfect the distribution system.

2. Identification of Source of Contamination

   a. The District will give consideration to the distribution system as a potential source of the contaminant (e.g., air valve inlet below ground).

   b. The District will not start flushing the distribution system until the source of contamination is identified (flushing may aggravate the backflow situation and will likely remove the contaminant before a water sample can be collected to fully identify the contaminant).

   c. The District will conduct a house-to-house survey to search for the source of contamination and the extent that the contaminant has spread through the distribution system. Note: a check of water meters may show a return of water (meter running backward) to the distribution system.

   d. When the cross connection responsible for the system contamination is located, the District will discontinue water service to that customer, until the customer completes the corrective action ordered by the District.

3. Isolation of Contaminated Portion of System

   a. The District will isolate the portions of the system that are suspected of being contaminated by closing isolating valves; leave one valve open to ensure that positive water pressure is maintained throughout the isolated system.

   b. The District will be sure to notify all affected customers in the isolated area first and then notify other customers served by the system.

4. Public Health Impacts

   a. The District will seek immediate input from and work with state and local health agencies to accurately communicate and properly mitigate potential health effects resulting from the backflow incident.

   b. If appropriate, the District will refer customers that may have consumed the contaminant or had their household (or commercial) potable water plumbing systems contaminated to public health personnel and Local Administrative Authorities (plumbing inspectors).

5. Cleaning/Disinfecting the Distribution System

   a. The District will develop and implement a program for cleaning the contaminated distribution system consistent with the contaminant(s) identified.

b. Where both chemical and bacteriological contamination has occurred, the District will disinfect the system after the removal of the chemical contaminant.

c. Where any bacteriological contamination is suspected, the District will provide field disinfection.

C. Additional Information on Cleaning/Disinfecting the Distribution System

Most chemical or physical contaminants can be flushed from the water distribution system or customer's potable water plumbing system with adequate flushing velocity. However, this may not be the case in systems where scale and corrosion deposits (e.g., tuberculation on old cast iron mains) provide a restriction to obtaining adequate flushing velocity, or where chemical deposits or bacteriological slimes (biofilm) are present (on which the chemical contaminant may adhere).

To remove a chemical or physical contaminant from the distribution system, the

District may need to:

1. Physically replace or clean the affected area using foam swabs (pigs); and/or
2. Alter the form of the chemical contaminant (e.g., through oxidation using chlorination or addition of detergents).

When adding any chemical (including chlorine) to remove a contaminant from the distribution system, it is essential that the District fully understand the chemistry of the contaminant.

Adding the wrong chemical could make the contaminant more toxic to customers and/or more difficult to remove from the distribution system.

To disinfect water mains using the "slug" or "continuous flow" method, a field unit should be used for chlorine injections, such as a chemical feed - metering or proportioning pump for gaseous chlorine dioxide or sodium hypochlorite (liquid chlorine). District should contact the appropriate SWRCB regional office to discuss proposed approaches to contaminant removal and disinfection prior to taking corrective action.

Appendix I

California Cross Connection Control Policy Handbook Appendix E: General Knowledge for Cross-Connection Control Specialist

1. General Range of Knowledge for Cross-Connection Control Specialists

To effectively prevent unintended backflow into a PWS's distribution system, it is necessary for a cross-connection control specialist to have an understanding of a range of subjects related to cross-connection control. This appendix provides a list of such subjects.

This appendix is not meant to preclude instruction of additional subjects that may be necessary or beneficial to the goal of a prospective or existing cross-connection control specialist in being proficient in protecting public health from backflow through cross-connection control measures. Emphasis on particular subjects should be in a manner that best achieves that goal.

(a) GENERAL

(1) Cross-connection control terminology.

(2) The history leading to the need for cross-connection control, including causes, impacts, including but not limited to:

(A) potable water distribution systems;

(B) examples of backflow incidents and actual or potential public health impacts; and

(C) evolution of methods of cross-connection control and backflow prevention assemblies.

(3) Hydraulics (general) – An understanding of hydraulic gradients, pressure variations, flow rates, temperature, the properties of water, backsiphonage, backpressure, and other elements necessary to understand the causes for backflow.

(4) Public outreach – How to appropriately convey the value of cross-connection control to PWS personnel and the public.

(b) LAWS, REGULATIONS, AND GUIDANCE

(1) Federal – Applicable federal laws, regulations, and guidance.

(2) State – California laws and regulations, including, but not limited to, the State Water Resources Control Board's most recent edition of its *Cross-Connection Control Policy Handbook* and other requirements related to cross-connection control.

(3) Local – An understanding of the need to ensure local requirements are considered and how best to find such requirements.

(c) HAZARD ASSESSMENTS AND METHODS TO PREVENT BACKFLOW

A comprehensive understanding of how to conduct cross-connection surveys of water systems for the purpose of identifying cross-connections, assessing hazards, and identifying the most effective and legally appropriate methods for protection

from backflow. At a minimum, the following topics should be considered to achieve such an understanding:

(1) Surveys:

(A) Preparation (e.g., authority, notification, prioritizing customers/premises, coordinating with public water systems, etc.);

(B) Design and as-built drawings related to water supply and cross-connection control;

(C) Public water system schematics;

(D) How to identify existing and new construction, with an understanding of how construction may impact backflow protection;

(E) How to identify cross-connections (actual and potential);

(F) How to identify and differentiate between high hazard and low hazard cross-connections; and

(G) Problems associated with multi-story buildings, multiple service connections at a premises, typical water-use equipment, etc., and varying types of water service, including irrigation, recycled water, gray water, fire prevention systems, and dual plumbed premises.

(2) Assessing Hazards:

(A) Identifying and differentiating between premises activities leading to high hazard cross-connections and low hazard cross-connections (for examples of high hazard activities, see Appendix D); and

(B) Understanding potential public health impacts from backflow associated with the problems in section (c)(1)(G) of this appendix.

(3) Assemblies and Methods for Backflow Prevention:

(A) A comprehensive understanding of approved methods for cross-connection control and preventing backflow with respect to an assessed hazard;

(B) Identifying unapproved methods for cross-connection control and preventing backflow;

(C) An understanding of components, design and operation, proper installation and location of backflow prevention assemblies, including air gaps, and backflow prevention assembly field test methods, field test results, and the assessment of air gaps; and

(D) Identifying unapproved assemblies, as well as those assemblies whose operation and/or state of repair necessitates replacement with an approved assembly.

(d) CROSS-CONNECTION CONTROL PROGRAMS

A comprehensive understanding of the development, elements, and administration of cross-connection control programs, including, but not limited to:

(1) An ability to assess the federal, state, and local requirements applicable to a public water system's cross-connection control program, such that adherence to the cross-connection control program would result in compliance with the requirements;

(2) The roles, responsibilities, and authority of individuals and entities involved in the critical elements of a successful plan for cross-connection control (see CCCPH section 3.1.4); and

(3) The ability to assess the components of a public water system's Cross-Connection Control Plan (see CCCPH section 3.1.4) that best assures the prevention of undesired backflow into the public water system's distribution system, and to communicate deficiencies to public water system personnel.

(e) CROSS-CONNECTION TESTS

A comprehensive understanding of:

(1) The purpose of a cross-connection test and when a cross-connection test should be performed;

(2) The ability to develop protocols and make arrangements for cross-connection tests, and subsequently oversee and/or perform such cross-connection tests, in a manner that determines whether interconnections exist between unapproved sources and approved water supplies; and

(3) Follow-up actions and notifications if a cross-connection test indicates an interconnection.

(f) RECORDKEEPING AND INCIDENT RESPONSE

A comprehensive understanding of:

(1) The agencies and authorities to be notified in the event of a backflow incident;

(2) How to determine the cause of a backflow incident and the actions necessary to prevent similar incidents in the future;

(3) How to properly document a backflow incident, including but not limited to the information in the example backflow incident response form in Appendix F; and

(4) How to properly document the elements associated with surveys and hazard assessments, including those identified in section (c) of this appendix.