



**City of Port Townsend Water System  
Cross Connection Control Program Plan**

**Adopted: June 6, 2022  
Resolution 22-026**

## **Cross-Connection Control Program Plan For City of Port Townsend Water System**

### **A. Requirement for Program**

**City of Port Townsend**, hereinafter referred to as “the Purveyor”, 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 physical connection between a potable water line and any pipe, vessel, or machine that contains or has a probability of containing a non-potable gas or liquid, such that it is possible for a non-potable gas or liquid to enter the potable water system by backflow.”

All public water systems are required to develop and implement cross-connection control (CCC) programs. The CCC requirements are contained in Washington Administrative Code (WAC) 246-290-490 of the Group A Drinking Water Regulations. The minimum required elements of a CCC program are:

1. Establishment of legal authority and program policies;
2. Evaluation of premises for cross-connection hazards;
3. Elimination and/or control of cross connections;
4. Provision of qualified personnel;
5. Inspection and testing of backflow preventers;
6. Quality control of testing process;
7. Response to backflow incidents;
8. Public education for consumers;
9. Record keeping for CCC program; and
10. Special requirements for reclaimed water use.

Other CCC program requirements include:

1. Coordination with the Authority Having Jurisdiction (AHJ) regarding CCC activities. The AHJs include the Port Townsend Development Services Department (Building Division) or Jefferson County Department of Community Development when the customer is located outside of the City limits;
2. Written agreement with the AHJ is recommended. In this case, the AHJ needing agreement is Jefferson County.
3. Prohibition of the return of used water into the public water system (PWS) distribution system; and
4. Inclusion of a written CCC program in a Water System Plan (WSP) or a Small Water System Management Program (SWSMP).

Note: Throughout the CCC program plan the term *customer* is used. *Customer* as used herein means the property owner and/or occupant of the premises served by the PWS (i.e., whoever interfaces with the PWS regarding water service). Also, unless otherwise defined, all CCC-related terms used in this program have the same definitions as those contained in WAC 246-290-010 of the Washington State Drinking Water Regulations.

## **B. Program Objectives**

The objectives of the CCC program are to:

1. Reasonably reduce the risk of contamination of the public water distribution system; and
2. Reasonably reduce the Purveyor'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; and
3. Cooperate with Port Townsend Development Services Department and Jefferson County's Department of Community Development.

## **C. Summary of Program Decisions**

The following table summarizes the major policy and program decisions adopted for the City of Port Townsend water system. The items in the table represent CCC program areas that have more than one acceptable approach or option.

**CCC Program Decision Summary Table for the  
City of Port Townsend**

<b>Decision Item</b>	<b>Decision</b>
<b>1. Type of Program [General, WAC 246-290-490(2)f]</b>	
a. Premises isolation only	
b. Premises isolation and in-premises protection (combination program)	X
<b>2. Extent of Coordination with AHJ [WAC 246-290-490(2)(d)]</b>	
a. Information exchange	X
b. Interaction	
c. Joint program	X
<b>3. Relationship with Customer [Element 1]</b>	
a. Signed service agreement or contract	
b. Ordinance/resolution; implied service agreement	X
<b>4. Enforcement of Corrective Action [Element 1]</b>	
a. Rely upon shut-off of water service	X
b. Rely upon purveyor-installed premises isolation	
<b>5. Assessment and Re-assessment of Hazard [Element 2]</b>	
a. By purveyor's staff or equivalent	X
b. By cross-connection control specialist (CCS) employed by customer; report reviewed by purveyor's CCS	X
<b>6. Location and Ownership of Premises Isolation Assembly [Element 3]</b>	
a. On purveyor's service line	
b. On customer's service line	X
<b>7. CCS Option – Purveyor's Program Management [Element 4]</b>	
a. Purveyor's staff member certified	X
b. Inter-agency agreement or use other agency's CCS	
c. Contract with consultant CCS	
<b>8. Testing of Assemblies [Element 5]</b>	
a. By purveyor's staff or purveyor-employed backflow assembly tester (BAT)	
b. By customer-employed (contractor) BAT	X
<b>9. Cost Recovery [WAC 246-290-100(4)(h) and –105(4)(p)]</b>	
a. Borne by all customers (general water rates)	
b. Assessed to specific class (commercial meters)	
c. Each customer directly bears cost	X

## D. Required Elements of Program

The drinking water regulations for Group A public water systems in Washington, WAC 246-290, require CCC programs to include certain minimum elements. The elements are listed in WAC 246-290-490(3). This section describes how the water system intends to comply with each of the required program elements. Elements are numbered the same as they appear in the WAC.

**Element 1:** Adoption of a written legal instrument authorizing the establishment and implementation of a CCC program.

The City of Port Townsend adopted Ordinance 2579 prohibiting cross connections. The City of Port Townsend amended the City code with the adoption of Ordinance                      and a resolution (Resolution No.                      ), which authorizes the Purveyor to implement a CCC program. The resolution also authorizes the system to terminate water service to consumers who do not comply with the resolution. The primary method for protection of the distribution system should be the elimination of the hazard followed by the installation of a backflow preventer by the customer, at the customer's expense

The written and implied contract terms are discussed further under Element 3.

**Element 2:** Development and implementation of procedures and schedules for evaluating new and existing service connections to assess the degree of hazard.

### Initial Cross-Connection Hazard Surveys

The procedures for evaluating the backflow prevention requirements for new and existing customers are as follows:

1. **For all new non-residential services**, the Purveyor requires that the customer submit with the application for water service an evaluation performed by a purveyor employed DOH-certified cross-connection control specialist (CCS) of the hazard posed by the proposed plumbing system. The Purveyor requires a reduced-pressure principle backflow assembly (RPBA) or air gap (AG) for new non-residential premises isolation and backflow protection as a condition of service.
2. **For all new residential services**, the Purveyor requires that the customer submit with the application for water service a completed "Water Use Questionnaire" (copy shown on page 19). If the customer's questionnaire indicates special plumbing, such as a lawn sprinkler system or hazardous water use on the premises, the Purveyor's DOH-certified CCS will conduct an evaluation of the hazard posed by the proposed special plumbing system. If the Purveyor determines a backflow prevention device is necessary, the CCS in coordination with the AHJ will specify requirements for the installation of either a DCVA, RPBA or commensurate in-premises protection as a condition of service.
3. **For all existing non-residential services**, the Purveyor will schedule an appointment with the customer, for the Purveyor's DOH-certified CCS to conduct a Cross Connection Hazard

Survey of the premise to establish (if applicable), within nine months of notification, the level of hazard posed by the customer's plumbing or water use, and the subsequent degree of protection with a DOH approved backflow prevention assembly required for the premise to be in compliance with the Purveyor's Cross Connection Policy.

As an alternative to the above requirement for a survey, the customer may agree to install an AG or RPBA for premises isolation within 90 days of notification by the Purveyor or an alternate time period acceptable to the Purveyor.

4. **For all existing residential services**, the Purveyor will require the customer to submit to the Purveyor, within nine months of notification, a completed "Water Use Questionnaire." If the customer's reply indicates special plumbing or water use on the premises, the purveyor shall be permitted to conduct a Cross Connection Hazard Survey to establish the level of hazard posed to the water system by the customer's special plumbing or water use, and subsequent degree of protection required for the premise to be in compliance with the purveyor's Cross Connection policy.

As an alternative to the above requirement for a survey by a CCS, the Purveyor will specify the type of backflow preventer required to be installed as a condition of service.

5. **For all existing services**, should the customer fail to supply the required information for a hazard assessment or fail to submit a completed "Water Use Questionnaire," the Purveyor may require the installation of an RPBA for premises isolation, or take other such actions consistent with the previously stated policies and bill the customer for the associated costs.

### **Cross-Connection Hazard Survey Schedule for Initial Hazard Assessments**

The schedule for initial hazard assessment is outlined in the following table. The schedule starts from the date the CCC program is established.

<b>Initial Assessment Task</b>	<b>Schedule</b>
Assessment of all new connections	At time of application for water service
Identification and assessment of high-hazard premises which are listed on Table 13 of Washington Administrative Code (WAC) 246-290-490	Within nine months
Identification and assessment of hazardous premises supplemental to Table 13 of WAC 246-290-490	Within 12 months
Identification of residential connections with special plumbing facilities and/or water use on the premises	Within 15 months

### **Cross-Connection Hazard Survey Schedule for Subsequent Hazard Re-Assessments**

For subsequent cross-connection hazard surveys, procedures for evaluating the backflow prevention

requirements are:

For **residential services**, the Purveyor will require the customer to submit to the Purveyor, within two months of purveyor 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.

**For all non-residential services**, the Purveyor will require the customer to submit to the Purveyor, within two months of purveyor notification, a hazard re-assessment by a DOH-certified CCS.

The frequency of hazard re-assessments will be as shown in the table below:

Type of Service	Frequency of Re-Evaluation
Any services with reduced-pressure principle backflow assembly (RPBA) installed for premises isolation	None required as long as the RPBA passes annual tests and inspections
Commercial services with double-check valve assembly (DCVA) installed for premises isolation	Every 2 years and upon change in use or ownership
Residential services with special plumbing where the purveyor relies upon compliance with Uniform Plumbing Code (UPC)	Every 2-3 years (questionnaire)
Residential services with DCVA installed for premises isolation	Every 4-5 years (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 (questionnaire)

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

The Purveyor will also inform the customer or any regulatory agencies that the Purveyor'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 purveyor'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.

**Element 3:** Development and implementation of procedures and schedules for elimination and/or control of cross-connections.

### **Backflow Preventer Requirements**

The following service policy shall apply to all new and existing customers:

1. Upon inspection or review of the building use the Purveyor in coordination with the AHJ may require that water service to **non-residential customers** be isolated after the meter by a DOH-approved backflow preventer acceptable to the Purveyor. All high-hazard connections of the type described in Table 13 of WAC 246-290-490 shall be isolated with an RPBA or air gap.
2. The Purveyor will require all **residential customers** with facilities of the type described in Table 13 of WAC 246-290-490 to be isolated with an RPBA. All other residential customers with special plumbing on the premises will be isolated with a DCVA. "Special plumbing" includes, but is not limited to, the following:
  - a. An underground lawn irrigation system;
  - b. A solar heating system;
  - c. Swimming pools
  - d. Services with a booster pump
  - e. Piping for livestock watering, hobby farming, etc.;
  - f. Residential fire sprinkler system; and
  - g. Property containing a small boat moorage.
3. **Additional premises requiring premises isolation.** The Purveyor has chosen to supplement Table 13 of WAC 246-290-490(4) by identifying additional premises or premises types for which premises isolation is mandated. Such premises will include boat, aircraft and automotive manufacturers, pulp and paper mills, military bases, tall buildings, premises with complex plumbing, premises with plumbing subject to frequent changes, plumbing with a repeat history of cross-connections being established or reestablished, premises with swimming pools, hot tub or spa, and marijuana production facilities.
4. **All remaining residential customers** will be isolated at the meter by a purveyor-installed dual check valve. Residential customers not required to be isolated with an RPBA may install in-premises protection in accordance with the Uniform Plumbing Code (UPC) in lieu of isolation with a DCVA.
5. **For all customers that have a written service contract with the Purveyor**, the required premises isolation DCVA or RPBA shall be:
  - Purchased and installed by the customer (at the customer's expense) between the meter and hazard in accordance with the Purveyor's standards described hereinafter; and
  - Maintained, tested, and inspected in accordance with the Purveyor's standards described hereinafter.

For new customers, the Purveyor will not turn on water at the meter (except for testing purposes) until the customer complies with the above requirements.

The failure of the customer to comply with the Purveyor's installation and maintenance



requirements shall constitute a breach of contract by the customer. The Purveyor may then proceed with corrective action provisions stipulated in the contract.

6. Customers without written contracts are considered to have an implied contract that requires the customer to bear all reasonable costs of service.

As an alternative: the customer may sign a service contract and install the required backflow preventer downstream of the meter in accordance with the Purveyor's installation standards described hereinafter.

## **7. Approved Backflow Preventers and Installation**

All backflow preventers relied upon by the Purveyor to protect the public water system shall meet the definition of "approved backflow preventer" as contained in WAC 246-290-010. The Purveyor will obtain and maintain a current list of assemblies approved for installation by the University of Southern California Foundation for Cross-Connection Control Research.

All backflow preventers will be installed in:

- The orientation for which they are approved;
- A manner and location that facilitates their proper operation, maintenance, and testing or inspection;
- A manner that will protect them from weather-related conditions such as flooding and freezing; and
- Compliance with applicable safety regulations.

Installation standards contained in the most recently published edition of the Pacific Northwest Section, American Water Works Association (PNWS-AWWA) *CCC Manual* or the University of Southern California Foundation for Cross-Connection Control and Hydraulic Research (USCFCCCHR) *CCC Manual* shall be followed unless the manufacturer's requirements are more stringent. Installation shall conform to standard construction drawings and specifications of the Purveyor.

The Purveyor 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 his plumbing system from sources within his/her premises. Any action taken by the Purveyor to survey plumbing, inspect or test backflow prevention assemblies, or to require premises isolation (installation of DCVA or RPBA on service) is solely for the purposes of reducing the risk of contamination of the Purveyor's distribution system.

The Purveyor will inform the customer that any action taken by the Purveyor shall not be construed by the customer as guidance on the safety or reliability of the customer's plumbing system. The Purveyor will not provide advice to the customer on the design and installation of plumbing other than through the general public education program discussed

in Element 8.

Except for easements containing the Purveyor's distribution system, the Purveyor will not undertake work on the customer's premises.

## **8. Schedule for Installation of Backflow Preventers**

The following table shows the schedule that the Purveyor will follow for installation of backflow preventers when they are required (based on the hazard evaluation).

<b>Type of Service</b>	<b>Schedule</b>
New connections with cross-connection hazards	Before service is initiated
Existing connections with Table 13-type hazards and other high cross-connection hazards	Within 90 days after notification
Existing connections with other than Table 13 of WAC 246-290-490 or high cross-connection hazards	Within 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 purveyor's water	Within 1 year after notification

The Purveyor may consider granting an extension of time for installation of backflow preventer for an existing connection if requested by the premises owner.

## **9. Compliance**

Port Townsend's policy is to emphasize compliance through education as a first step. If the customer does not voluntarily comply with these service requirements, enforcement according to the Port Townsend Municipal Code section 1.20 may be used to assure and effect compliance. The formal compliance process procedures comprise:

- a. Issue a letter requesting voluntary compliance within number of days specified in the table in Element 3, section 8.
- b. If compliance is not achieved, then a notice of code violation with associated fines will be issued.
- c. If compliance is not achieved within 30 days of the notice of code violation, then water service will be terminated.
- d. If the city and property owner enter into a voluntary compliance agreement, then the provisions of this agreement shall be applied. Voluntary compliance agreements may be issued to address extenuating circumstances.
- e. For certain situations i.e., public health emergencies, immediate service termination may be required..

**Element 4:** Provision of qualified personnel, including at least one person certified as a CCS, to develop and implement the CCC program.

1. **Program Administration:** The responsibility for administration of the CCC Program rests

with the Purveyor. General policy direction and risk management decisions are established by the City of Port Townsend City Council. The Authority Having Jurisdiction (AHJ) may undertake certain administrative tasks, and the Purveyor may undertake additional tasks to assist the AHJ.

2. The Purveyor will employ or have on staff at least one person certified by DOH as a CCS to develop and implement the CCC program. As an alternative, or when no staff or employees are properly qualified, the Purveyor may retain a DOH-certified CCS on contract to provide the necessary expertise and services.
3. The following cross-connection related tasks will be performed by or under the direction of the Purveyor's certified CCS (on staff or under contract):
  - Preparation of and recommendations regarding changes to the CCC program;
  - 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 isolation;
  - Participation in or cooperation with other water utility 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.
4. The Purveyor may delegate other CCC program activities to other personnel who are not certified CCSs, 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;
  - CCC program database administration and record keeping;
  - Dissemination of public education material; and
  - Assisting tasks associated with coordination with the AHJ.
5. The following table identifies the current CCS employed or retained on contract by the Purveyor to manage the Purveyor's CCC program and/or act as the CCC technical resource for the Purveyor:

Name of CCS	Patrick Mchenry
Address	250 Madison Street Suite 2R
City, State, Zip	Port Townsend, Washington 98368

Telephone Number	1-(360)-379-4434
CCS Certification Number	14934

**Element 5:** Development and implementation of procedures to ensure that approved backflow preventers are inspected and/or tested (as applicable).

### **1. Inspection and Testing of Backflow Preventers**

All backflow preventers that the Purveyor 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 Purveyor relies upon for protection of the water systems.

Inspection and testing of backflow preventers will be as follows:

- The Purveyor's DOH-certified CCS will inspect premise backflow preventers for proper application (i.e., to ensure that the preventer installed is commensurate with the assessed degree of hazard). In-premise isolation will be inspected by the Port Townsend Building Inspector or AHJ in coordination with the Purveyor.
- Either a DOH-certified CCS or backflow assembly tester (BAT) will perform inspections of backflow preventers for correct installation. The Purveyor will forward BAT reports to the Building Inspector or AHJ for plumbing permit signoff.
- A DOH-certified backflow assembly tester will test all assemblies relied upon by the Purveyor to protect the public water system.

### **2. Frequency of Inspection and Testing**

Inspection and testing of backflow preventers will be conducted:

- At the time of installation;
- Annually after installation;
- After a backflow incident; and
- After repair, reinstallation, relocation, or re-plumbing.

The Purveyor 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 tests or inspections.

### **3. Responsibility for Inspection and Testing**

The Purveyor will be responsible for inspection and testing of all purveyor-owned backflow preventers.

The customer to be responsible for inspection and testing of backflow preventers owned by the customer. The customer shall employ, at customer expense, a DOH-certified BAT, to

conduct the inspection and test within the time period specified in the testing notice sent by the Purveyor. The test report shall be completed and signed by the BAT before the due date specified by the Purveyor. The customer may request an extension of the due date for returning a test report by submitting a written request to the Purveyor. The Purveyor may grant one extension up to 90 days.

#### **4. Approved Test Procedures**

The Purveyor will require that all assemblies relied upon to protect the public water system be tested in accordance with DOH-approved test procedures as specified in WAC 246-290-490(7)(d).

#### **5. Notification of Inspection and/or Testing**

The Purveyor will notify in writing all customers who own backflow preventers that are relied upon to protect the public water system to have their backflow preventer(s) inspected and/or tested. 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 (up to 30 days after the due date of the inspection and/or test date) by which the inspection/test report must be received by the Purveyor.

#### **6. Enforcement**

When a customer fails to send in the inspection/test report within 15 days after the due date specified, and the Purveyor has not approved an extension to the due date, the Purveyor will take the following enforcement action:

- The Purveyor will send a second notice giving the customer an additional 15 days to send in the inspection/test report.
- If the customer has not sent in the inspection/test report within 10 days of the due date given in the second notice, the Purveyor will send a third notice, by certified mail, or by hand delivery, giving the customer an additional 15 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 service shut-off.
- The Purveyor will send copies of the third notice to the owner and occupants of the premises (if different from the customer) and to the AHJ if applicable.
- If the owner and/or occupants have not responded satisfactorily to the Purveyor within the due date specified in the third notice, the Purveyor will implement water service shut-off procedures.

**Element 6:** Development and implementation of a backflow prevention assembly testing quality assurance/quality control program.

##### **1. List of Pre-Approved BATs**

The Purveyor will maintain a list of local, DOH-certified BATs that are pre-approved by the

Purveyor to perform the following activities:

- Backflow preventer inspection for proper installation; and
- Backflow assembly testing.

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

## **2. Pre-Approval Qualifications**

**BATs** who wish to be included on the Purveyor's pre-approved list and/or provide testing in the Purveyor's service area must apply to the Purveyor and furnish the following information:

- Evidence of current DOH certification in good standing;
- Make and model of testing equipment (BAT listing only);
- Evidence of test equipment verification of accuracy and/or calibration within the past 12 months (BAT listing only);
- Evidence showing possession of a license to operate a business in the City of Port Townsend.

## **3. Quality Assurance**

The Purveyor's CCS will review within 30 days of receipt the backflow preventer inspection/test report forms submitted by the customer or BAT. The Purveyor's CCS may accept reports that are signed by a BAT not on the pre-approved BAT list provided that the same information as listed in "Pre-Approval Qualifications" is also submitted to the Purveyor.

The Purveyor's CCS will provide follow up on test reports that are deficient in any way.

The Purveyor's CCS will report incidences of fraud or gross incompetence on the part of any BAT or CCS to DOH Operator Certification program staff.

**Element 7:** Development and implementation (when appropriate) of procedures for responding to backflow incidents.

## **1. Backflow Incident Response Plan**

The Purveyor's CCS will participate in developing a backflow incident response plan that will be part of the water system's emergency response program as required by WAC 246-290-415(2). The incident response plan will include, but will not be limited to:

- Notification of affected population;
- Notification and coordination with other agencies, such as DOH, the AHJ, and the local health jurisdiction;
- Identification of the source of contamination;

- Isolation of the source of contamination and the affected area(s);
- Cleaning, flushing, and other measures to mitigate and correct the problem; and
- Apply corrective action to prevent future backflow occurrences.

## **2. Technical Resources**

The Purveyor will use the most recently published edition of the manual, *Backflow Incident Investigation Procedures*, published by the PNWS-AWWA as a supplement to the Backflow Incident Response Plan for the City of Port Townsend.

**Element 8:** Development and implementation of a cross-connection control public education program.

### **1. Customer Education**

The Purveyor will distribute with water bills or by some other means, at regular intervals, public education brochures to system 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. The Purveyor's staff will produce the public education brochures, or the Purveyor will obtain brochures from:

- PNWS-AWWA;
- Spokane Regional Cross-Connection Control Committee (SRC4);
- Western Washington Cross-Connection Prevention Professionals Group (The Group);
- USC FCCCHR;
- Other national backflow prevention associations, such as the American Backflow Prevention Association (ABPA);
- Washington Department of Health and/or
- Other water utilities.

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

- Cross-connection hazards in general;
- Irrigation system hazards and corrective actions;
- Fire sprinkler cross-connection hazards;
- Importance of annual inspection and/or testing of backflow preventers; and
- Thermal expansion in hot water systems when backflow preventers are installed for premises isolation.

**Element 9:** Development and maintenance of cross-connection control records.

### **1. Types of Records and Data to be Maintained**

The Purveyor will maintain records of the following types of information required by WAC 246-290-490:

- Service connections/customer premises information including:
  - Assessed degree of hazard; and
  - Required backflow preventer to protect the public water system.
- Backflow preventer inventory and information including:
  - Air gap (AG) location, installation and inspection dates, inspection results and person conducting inspection;
  - Backflow assembly location, assembly description (type, manufacturer, make, model, size, and serial number), installation, inspection and test dates, test results and data, and person performing test; and

The Purveyor will maintain records on all assemblies that protect the public water system from contamination. At a minimum, the Purveyor will maintain records on all premises isolation assemblies required to protect the public water system.

## **2. Reports to be Prepared and Submitted to DOH**

The Purveyor will prepare the following reports required by WAC 246-290-490 including:

- Cross-connection control program activities report for the calendar year, to be submitted through the online portal;
- Cross-connection control program summary information, when required, or when there are significant policy changes;
- Backflow incident reports to DOH; and
- Documentation when exceptions to mandatory premises isolation are granted.

At a minimum, the Purveyor's CCS will prepare and sign the exceptions reports.

The Purveyor's CCS will prepare and sign all CCC-related reports required by WAC 246-290-490. The manager of the public water system will review all CCC-related reports for correctness. The Purveyor's CCS shall sign the CCC reports before submission to DOH.

**Element 10:** Additional cross-connection control requirements for reclaimed water.

At this time the City of Port Townsend does not receive or distribute reclaimed water. In the event that reclaimed water use is proposed within the PWS's service area, the Purveyor will make all cross-connection control requirements mandated by the Permitting Authority in accordance with Chapter 90.46 RCW part of the written CCC program plan and comply with such additional requirements.

## **E. Other Provisions**



## **1. Coordination with Authority Having Jurisdiction**

Both WAC 246-290-490 and the Uniform Plumbing Code amended for Washington require coordination between the water purveyor and the Authority Having Jurisdiction (AHJ) in all matters pertaining to cross-connection control.

The Purveyor will provide a copy of this CCC program to the City of Port Townsend Building Department and Jefferson County Department of Community Development Building Division via a copy of the Purveyor's water system plan or in a separate document. The Purveyor will inform the AHJ of any changes in policy or procedure that may impact the AHJ.

The Purveyor will provide information to the AHJ in a timely manner regarding any:

- Requirement imposed on a residential customer for the installation of a DCVA or an RPBA on the service, with a description of the cross-connection hazard identified;
- Upgrade of the premises isolation backflow preventer, i.e., from a DCVA to an RPBA;
- Action taken to discontinue water service to a customer; and
- Backflow incident known by the Purveyor to have contaminated the public water system or a customer's plumbing system.

The Purveyor will pursue development of a written agreement with the AHJ regarding the details of the coordination on CCC issues between the two parties. The agreement will include, but not be limited to, the following items:

- The purpose of the written agreement;
- Identification of the parties and other interested agencies;
- Delineation of responsibilities;
- Procedures regarding new service connections;
- Procedures regarding existing and changes to existing services;
- Special policies and procedures, such as for fire protection and irrigation services;
- Procedures regarding water service shut-offs, backflow incidents, and other events;
- Communications between parties; and
- Other contingencies.

## **3. Prohibition of Return of Used Water.**

The PWS prohibits the intentional return of used water to the Purveyor's distribution system per WAC 246-290-490 (2)(1). Used water is defined as water that has left the control of the Purveyor. This includes water used for heating and cooling purposes and water that may flow back into the distribution system from customer connections.

It is the policy of the City of Port Townsend water system to:

- Prohibit the intentional return of used water to the distribution system by any customer served by the public water system; and

- Require that all customers with connections, where the hydraulics permit the potential return of used water, to install a backflow preventer (DCVA or RPBA) commensurate with the degree of hazard at each point of connection.

**5. Tanker Trucks.** The Purveyor may allow tanker trucks to obtain water from the Purveyor's water system under the following conditions:

- The tanker truck is equipped with an approved AG or an approved RPBA with a current satisfactory inspection or test report."
- The tanker truck will obtain water from purveyor-designated watering points only with an approved and inspected backflow prevention device.
- The tanker truck must pass inspection by the purveyor before use of the Purveyors approved watering point.

**6. Temporary Water Connections.** The Purveyor will not supply water through temporary connections, such as those used for construction projects or main disinfection, except through a backflow preventer arrangement approved by the Purveyor.

## **F. Relationship to Other Planning and Operations Program Requirements**

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

- And promoting adequate communication between CCC program personnel and other water utility staff;
- That adequate training is provided to all staff to recognize potential cross-connection control problems;
- That cross-connection issues be considered in water quality investigations;
- That the design of the water distribution system makes adequate provisions for expected head losses incurred through backflow assemblies;
- That CCC program personnel be consulted in the design of water and wastewater treatment facilities and when proposals are made to receive or distribute reclaimed water;
- That operations under normal and abnormal conditions do not result in excessive pressure losses; and
- That adequate financial and administrative resources are available to carry out the CCC program.

## Water Use Questionnaire

### *Residential Customers*

Customer Account Number: \_\_\_\_\_

Customer Name: \_\_\_\_\_

Address Line 1: \_\_\_\_\_

Address Line 2: \_\_\_\_\_

Please indicate whether the special plumbing or activities listed below apply to your premises:

Yes	No	Plumbing or Activity Present on Customer's Premises*
		Underground sprinkler system
		Water treatment system (e.g., water softener)
		Solar heating system
		Residential fire sprinkler system
		Other water supply (whether or not connected to plumbing system)
		Sewage pumping facilities or grey water system
		Boat moorage with water supply
		Hobby farm
		Animal watering troughs
		Swimming pool or spa
		Greenhouse
		Decorative pond
		Photo lab or dark room
		Boiler or radiant heating system with makeup water
		Booster pump
		Irrigation well
		Home-based business. If Yes, list type/describe (e.g., beauty salon, machine shop, etc.): _____

\* Based on their knowledge of residential connections served, public water systems may "customize" this list by adding or deleting plumbing categories or activities

Completed by (print name): \_\_\_\_\_

Date: \_\_\_\_\_

Customer Signature: \_\_\_\_\_