

NORTH WELD COUNTY WATER DISTRICT

# CROSS-CONNECTION CONTROL MANUAL

ADOPTED: JANUARY 1, 2017  
REVISED: MAY 10, 2021



# Cross-Connection Control Manual

North Weld County Water  
District

Adopted: January 1, 2017

Revised: May 10, 2021

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## **PART 1 - INTRODUCTION**

### **1.01. PURPOSE OF MANUAL**

- A. This Manual outlines North Weld County Water District's (NWCWD) requirements and Tapholder responsibilities regarding Cross-Connection Control and backflow prevention. The Manual provides general guidance for complying with NWCWD's *Backflow Prevention and Cross-Connection Control Regulation* (BPCCC) Regulation. Section 2.01 contains a table of commonly used terms, acronyms, and abbreviations and their associated definitions. In the event of any inconsistency between the BPCCC Regulation and this Manual, the BPCCC Regulation controls. Tapholders should always consult with a plumbing professional before making any modifications to their plumbing system, and nothing in this Manual or the BPCCC Regulation relieves Tapholders of the responsibility to comply with applicable plumbing codes.

### **1.02. WHAT IS CROSS-CONNECTION CONTROL?**

- A. A *Cross-Connection* is a connection that could allow any substance (including water) that presents a public health or safety risk to flow from a Tapholder's Water System into NWCWD's Water System through Backflow, the reverse flow of any substance (including water) caused by Backpressure or Backsiphonage. Cross-Connection Control refers to the program implemented by NWCWD to eliminate the threat posed by Cross-Connections. This program includes inventorying, monitoring, and enforcing the installation of backflow prevention assemblies and/or methods.
- B. Without Cross-Connection Control, many Tapholder Water Systems pose a Backflow threat to NWCWD's Water System. Cross-Connection Control is common, and many businesses have long utilized testable Backflow Prevention Assemblies to protect the drinking water system from potentially harmful substances. The same is true for residential dwellings. The average household sink, whether in the bathroom or a kitchen, utilizes an Air Gap to prevent the drinking water supply from Contamination. Other appliances that utilize water (e.g., clothes washers) have built-in Backflow preventers as well.
- C. Examples of buildings, systems, or operations that present Backflow risks include, but are not limited to:
  - 1. Apartments / Multi-Family Buildings.
  - 2. Automotive Repair Shops.
  - 3. Barber Shops / Beauty Salons.
  - 4. Beverage Plants / Breweries / Distilleries.
  - 5. Canneries / Packing / Reduction Plants.

6. Car Washes.
7. Dairies and/or Cold Storage Plants.
8. Feedlots.
9. Fire Sprinkler Systems.
10. Food Preparation Facilities / Restaurants.
11. Gas stations.
12. Hospitals / Medical Facilities.
13. Hotels / Motels.
14. Industrial Facilities.
15. Irrigation Systems / Lawn Services.
16. Livestock Operations.
17. Pet Services – Boarding / Grooming / Veterinaries.
18. Single Family Residential with Potential Threats:
  - a. Dedicated irrigation lines (from the water main);
  - b. Dedicated fire suppression system lines and chemically enhanced fire suppression systems;
  - c. Multi-purpose fire suppression where each branch of the suppression system does not terminate at a regularly used fixture;
  - d. Auxiliary Water Sources (e.g., wells, ponds, lagoons, irrigation ditches), hot tubs or swimming pools piped with permanent plumbing, reclaimed water systems, graywater systems, or onsite water storage tanks with permanent plumbing (cisterns); and
  - e. Connections to a home's Potable Water supply system from home business and hobbies including but not limited to agricultural commerce and hydroponic systems, doctor's offices, photo laboratories, hide tanning operations, and metal plating operations.
19. Schools.

### **1.03. CDPHE REGULATION 11.39**

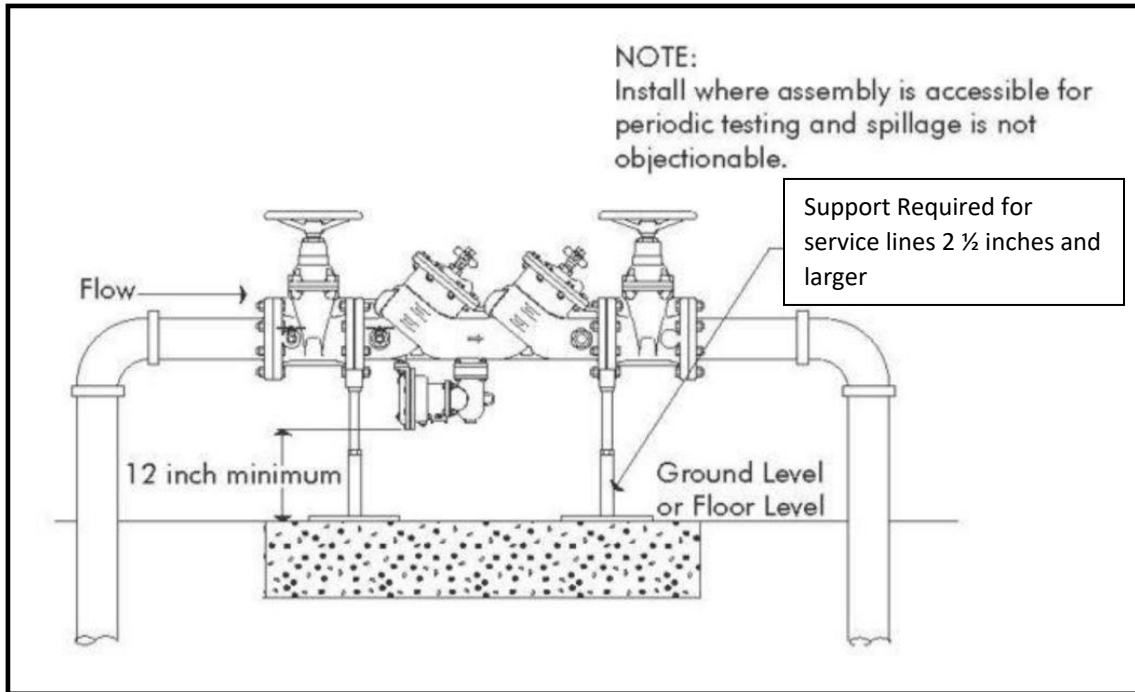
- A. As a water supplier that owns and operates public water systems, NWCWD is required by Colorado Department of Public Health and Environment (CDPHE) Regulation 11.39 to protect drinking water from potential Contamination through Cross-Connections. In general, Regulation 11.39 requires water suppliers do the following:
1. Develop and implement a written Backflow Prevention and Cross-Connection Control Program;
  2. Notify CDPHE of any suspected or confirmed Backflow events;
  3. Prohibit uncontrolled Cross-Connections at its facilities or throughout the distribution system;
  4. Control or eliminate uncontrolled Cross-Connections once discovered;
  5. Control all newly installed Cross-Connections;
  6. Survey all non-single-family-residential connections for Cross-Connections or control non-surveyed non-single-family-residential connections with the most protective Backflow Prevention Assembly or Backflow Prevention Method;
  7. Control any identified Cross-Connection in a manner that prevents Backflow through the Cross-Connection into the distribution system;
  8. Perform or verify annual Backflow Prevention Assembly testing;
  9. Perform or verify annual Backflow prevention method inspections;
  10. Ensure that all failed assemblies and inadequate methods are repaired or replaced; and,
  11. Keep records and develop an annual report to track compliance with CDPHE Regulation 11.39.

### **1.04. HOW DOES NWCWD IMPLEMENT CROSS-CONNECTION CONTROL?**

- A. NWCWD's *BPCCC Regulation* implements a "Containment" approach using *reduced pressure zone (RPZ) Backflow Prevention Assemblies* to protect NWCWD's public water system from Backflow. Containment is achieved by installing an Approved *RPZ Assembly* immediately downstream of the meter, thereby providing protection from any activity occurring downstream of the service connection, and "containing" the threat within the Tapholder's Water System. (See Section 2.02.C for additional information regarding *RPZ* installation.) Approved *RPZ Assemblies* provide NWCWD's system with the highest level of protection available compared to other Backflow Prevention Assemblies, such as double check valves and pressure vacuum breakers. The Approved *RPZ Assembly* requirement applies to all existing and future non-single



family service connections, in addition to existing and future single-family service connections with known risks of Backflow.



**Figure 1 – Typical RPZ Installation**

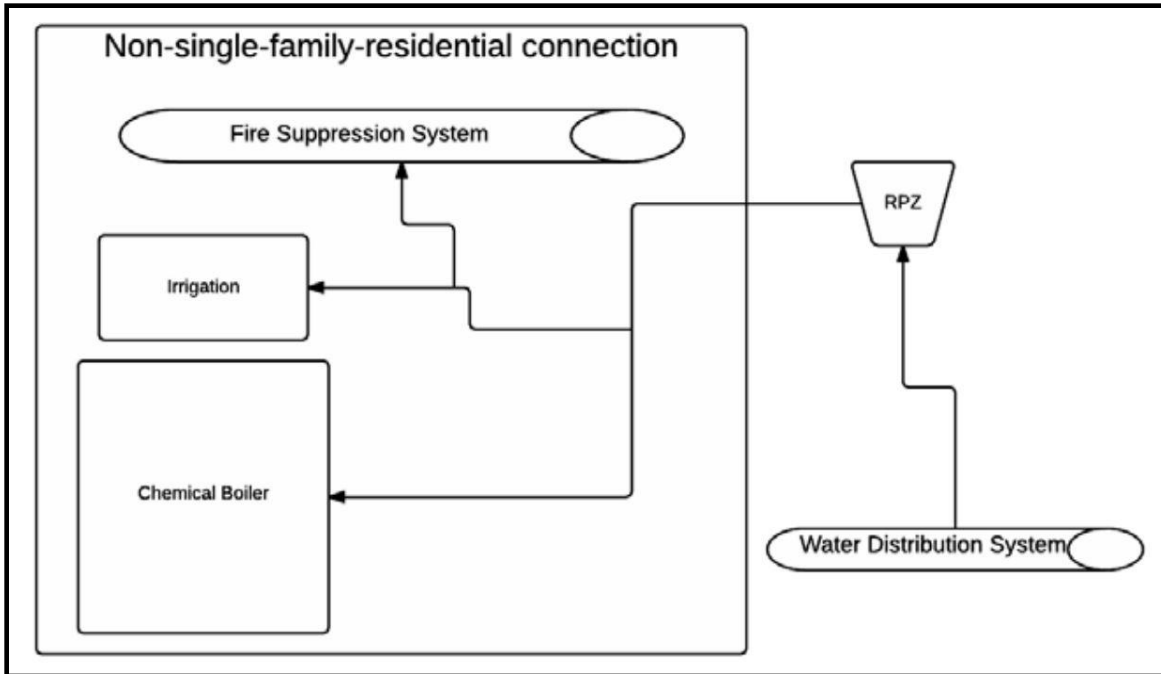


Figure 2 - Containment Diagram<sup>1</sup>

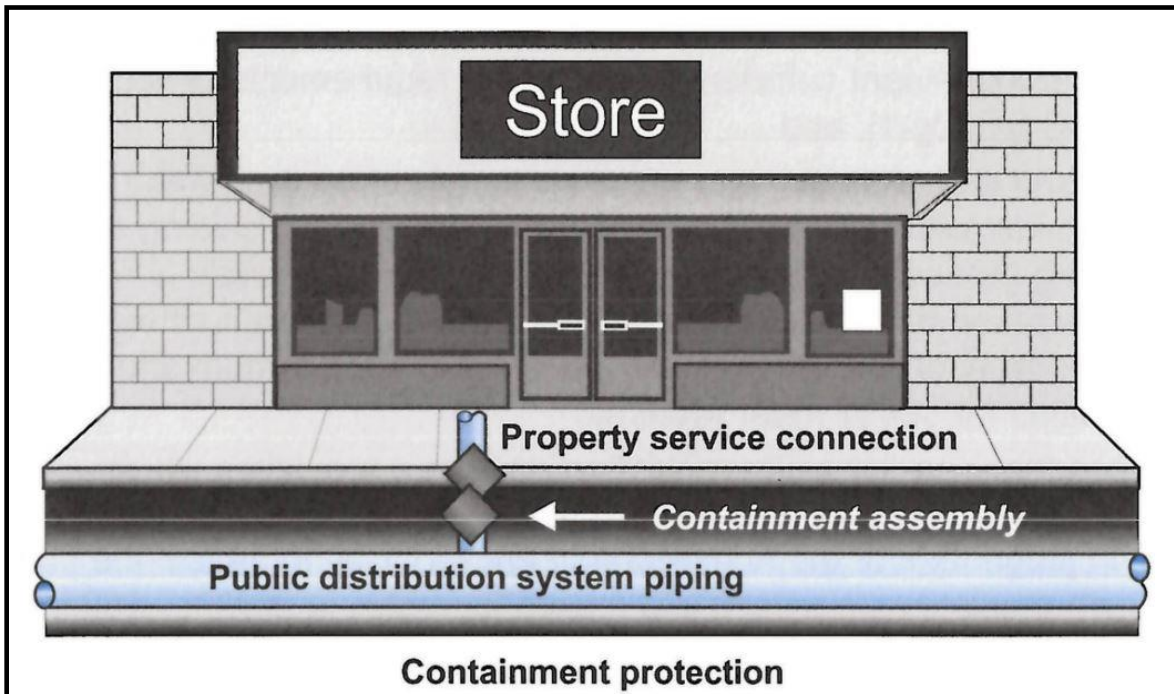


Figure 3 - Containment Example<sup>2</sup>

<sup>1</sup> Source: CDPHE Regulation 11.39, April 2017

<sup>2</sup> Source: Colorado Cross-Connection Control Manual, August 2004

**PART 2 - GENERAL**

**2.01. DEFINITIONS**

- A. The following terms, acronyms, and abbreviations, when used in this Manual, shall have the following meaning:

**Table 1 - Definitions**

<b>Term, Acronym, or Abbreviation</b>	<b>Definition</b>
Air Gap	A physical separation between the free-flowing discharge end of a Potable Water supply pipeline and an open or non-pressure receiving vessel. An “approved Air Gap” shall be at least twice the diameter of the supply pipe measured vertically above the overflow or rim of the receiving vessel; in no case less than 1-inch.
Approved RPZ Assembly	A reduced pressure zone Backflow Prevention Assembly that NWCWD has approved for a specific application.
ASSE	American Society of Sanitary Engineering
Auxiliary Water Source	Any water supply on or available to any premises other than the NWCWD Potable Water supply. These auxiliary water supplies may include, but not be limited to, water from another utility’s Potable Water system or from any other source such as a well, ditch, spring, river, pond, lake, reservoir, stream, or tank.
Backflow	The reverse flow of any substance (including water) caused by back pressure or back siphonage.
Backflow Prevention Assembly	An in-line field-testable mechanical assembly installed at a water service connection or plumbing fixture to prevent Backflow.
Backflow Prevention Method	A method, such as an Air Gap, or non-testable device installed at a water service connection or plumbing fixture to prevent Backflow.
Backpressure	Any increase in pressure in the downstream piping system (by pump, elevation of piping, thermal expansion, steam, or air pressure) above the supply pressure at the point of consideration, which would cause, or tend to cause, a reversal of the normal direction of flow.
Backsiphonage	Any form of Backflow due to a reduction in water supply pressure that causes a negative or sub-atmospheric pressure to exist. Backsiphonage will occur if atmospheric pressure is introduced into the system during a sub-atmospheric condition in the water supply.

<b>Term, Acronym, or Abbreviation</b>	<b>Definition</b>
CDPHE	Colorado Department of Public Health & Environment
Certified Cross-Connection Control Technician	A person who possesses a valid Backflow Prevention Assembly tester certification from one of the following approved organizations: American Society of Sanitary Engineering (ASSE) or the American Backflow Prevention Association (ABPA). An expired certification is not valid.
Containment	The installation of a Backflow Prevention Assembly or a Backflow Prevention Method at a service connection to NWCWD's Water System supplying a location, facility, premises, or consecutive water system, to prevent Backflow from a Cross-Connection into NWCWD's Water System.
Contamination	An impairment of the quality of Potable Water by sewage, industrial fluids, waste liquids, compounds, or any other materials, solids, gases, or liquids to a degree that creates an actual Health Hazard to the public.
Cross-Connection	A connection that could allow any substance (including water) that presents a public health or safety risk, to flow from a Tapholder's Water System into NWCWD's Water System through Backflow.
Cross-Connection Control Administrator	The person(s) assigned by NWCWD to oversee the Cross-Connection Control Program.
Customer	The person or entity that receives water service through a NWCWD tap. The Customer may be the Tapholder.
Degree of Hazard	The level of potential risk to the public health and the type of adverse effect that the Hazard may have upon NWCWD's Water System. NWCWD recognizes two levels of Degree of Hazard: Non-Health Hazard and Health Hazard.
District	North Weld County Water District
Hazard	An actual or potential threat of severe damage to the physical properties of NWCWD's Water System or of pollution or Contamination that would have a protracted effect on the quality of the Potable Water in the system.
Health Hazard	Any condition, device, or practice in a Tapholder's Water System that could, in the judgment of the Cross-Connection Control Administrator or CDPHE, create a danger to the public health and well-being.

<b>Term, Acronym, or Abbreviation</b>	<b>Definition</b>
Hospital	Any facility operated for the diagnosis, care, and treatment of human or animal disease, illness, or injury, including convalescence and care during and after pregnancy and to which persons or animals may be admitted for overnight stay or longer. The term “Hospital” includes, without limitation, sanitariums, nursing homes, maternity homes, veterinaries, and animal care facilities or clinics.
Industrial Piping System	Any system used by a Tapholder for transmission of, or to confine, any fluid, liquid, solid, or gaseous substance other than potable water. Such a system includes, but is not limited to, all pipes, conduits, tanks, receptacles, fixtures, equipment, and appurtenances used to produce, convey, or store substances other than potable water.
Isolation	The installation of Backflow Prevention Assemblies or Backflow Prevention Methods at every Cross-Connection identified within a Tapholder’s Water System to prevent Backflow from a Cross-Connection into NWCWD’s Water System.
Manual	NWCWD’s Cross-Connection Control Manual, i.e., this document.
Master Plumber	A plumber with an active Master Plumber certification listed on the Colorado Department of Regulatory Agencies list of Master Plumbers.
Non-Health Hazard	An actual or potential threat to the physical properties of NWCWD’s Water System or to the quality of the water in NWCWD’s Water System that would constitute a nuisance, be aesthetically objectionable, or cause minor damage to the system or its appurtenances, but which would not threaten public health.
Non-Testable Devices	Backflow prevention devices which that are non-testable (hose bibb vacuum breakers, atmospheric vacuum breakers, etc.) and are designed for providing backflow protection within the customer’s plumbing system. Non-testable devices may not be used for Containment.
NWCWD	North Weld County Water District
NWCWD's Water System	The District’s distribution system, including all facilities under the complete control of the District, up to the point where the Tapholder’s Water System begins.
Potable Water	Water that has been approved by CDPHE as safe for human consumption.

<b>Term, Acronym, or Abbreviation</b>	<b>Definition</b>
Potable Water System	Any system for the transmission, storage, and use of Potable Water. This system includes all sources, facilities, and appurtenances from the source to the point of delivery of Potable Water to the Tapholder, such as valves, pumps, conduits, pipes, tanks, receptacles, fixtures, equipment, and all other appurtenances used to produce, convey, treat, and store Potable Water for public consumption or use.
Regulation	NWCWD's Backflow Prevention And Cross-Connection Control Regulation
RPZ	Reduced Pressure Zone
Single-Family Residential	A single residential dwelling occupied by a single family and supplied by a separate service line; or  A single residential dwelling comprised of multiple living units where a separate service line supplies each living unit.
Tapholder	The legal owner of the tap through which the Customer receives water service from NWCWD. For purposes of NWCWD's BPCCC Program, this term includes a consecutive water system purchasing water wholesale from NWCWD.
Tapholder's Water System	The facilities beyond the termination of NWCWD's Water System immediately downstream of the meter, including piping, connection fittings, valves, and appurtenances utilized in conveying water to points of use.
USC-FCCC&HR	The Foundation for Cross-Connection Control and Hydraulic Research of the University of Southern California.
Variance	A deviation, with conditions, from the requirement to install an Approved RPZ Assembly immediately downstream of the water meter.
Water Service Connection	The terminal end of a service connection to NWCWD's Water System, being the downstream end of the curb-stop valve where NWCWD loses control over the water at its point of delivery to the Tapholder's Water System. "Water Service Connection" also includes service connections from a fire hydrant and all other temporary or emergency service connections from NWCWD's Water System.

## **2.02. EXECUTION**

### **A. Responsibilities**

1. The Tapholder must keep pollutants and contaminants from Tapholder's Water System from entering NWCWD's Water System by installing, operating, maintaining, and annually testing, inspecting, repairing, and replacing, an Approved RPZ Assembly. The Tapholder is solely responsible for all costs required to comply with the Regulation.

B. Approved RPZ Assemblies

1. Approved RPZ Assemblies are only those listed in USC-FCCC&HR's most current "List of Approved Backflow Prevention Assemblies," included in Appendix A, or ASSE's most current certified "ASSE Product Listings" included in Appendix B. The entire Backflow Prevention Assembly, including the isolation valves furnished as part of the assembly, must be approved by, and meet the design and performance specifications of, USC-FCCC&HR or ASSE.
2. Approved RPZ Assemblies that are listed in USC-FCCC&HR or ASSE approved product lists at the time the assembly is installed, but are later removed from the USC-FCCC&HR and ASSE approved product lists, will continue to be approved by NWCWD until the assembly no longer passes a Backflow prevention test.

C. Installation

1. The Tapholder must install the Approved RPZ Assembly immediately downstream of the meter or as close to that location as NWCWD deems practicable. In no case is it permissible to have connections or tees installed on the water service line between the meter and the Approved RPZ Assembly.
2. The Tapholder must install the Approved RPZ Assembly in an accessible location and with adequate clearances in accordance with manufacturer's recommendations and accepted design standards to facilitate maintenance, testing, and repair. Assemblies installed in a confined area must maintain the following minimum clearances, or those otherwise specified by the Cross-Connection Control Administrator:
  - a. Minimum 12 inches and maximum 36 inches above finish floor or final grade.
  - b. Minimum 12 inches from the adjacent or back wall.
  - c. Minimum 24 inches from the opposing or facing wall.
  - d. Minimum 24 inches clearance above the assembly.
  - e. Adequate clearance must be provided at each end for operation of valves and/or repair of the assembly.
3. Approved RPZ Assemblies must be installed in an orientation approved by USC-FCCC&HR or ASSE.

4. Approved RPZ Assemblies must not be installed in a below-grade pit or vault, or in any area or manner that subjects it to flooding.
  - a. RPZ assemblies are designed to discharge water to atmosphere under certain conditions. Small volume discharges occur commonly as the assembly reacts to incidental hydraulic conditions in the system. However, continuous or large volume discharges are possible with fouled components or severe water hammer events. NWCWD is not liable for flood damage from such discharges. Tapholders should consult with a plumbing professional and take appropriate measures to avoid flood damage when installing or maintaining an Approved RPZ Assembly.
  - b. Approved RPZ Assemblies must be installed so that any water pooling under the assembly cannot rise within 12 vertical inches of the relief valve discharge port.
  - c. The relief valve discharge port on an Approved RPZ Assembly must not directly connect to any sump or sanitary sewer.
  - d. Only factory supplied funnels may be used to remove the periodic discharge from the Approved RPZ Assembly and the piping system must have an Air Gap at the termination of the run.
5. Isolation valves furnished as part of the Approved RPZ Assembly must not be used as the inlet or outlet valve of the meter. Test cocks on Approved RPZ Assemblies must not be used as supply connections.
6. Approved RPZ Assemblies must be installed without any bypass unless the bypass line is also protected by an Approved RPZ Assembly.
7. Approved RPZ Assemblies must not be located in any enclosure or hooded area containing corrosive, toxic, or poisonous fumes.
8. Buried stop and waste valves are not permitted upstream of Backflow Prevention Assemblies. Above-grade stop and waste valves are permitted upstream of Backflow Prevention Assemblies provided they do not have a usable hose connection.
9. Where a Tapholder's Water System uses water heating equipment that may increase pressure through thermal expansion, the Tapholder must install an appropriate pressure control device in addition to the Approved RPZ Assembly. All Approved RPZ Assemblies must be protected from freezing. Approved RPZ Assemblies installed on lines for seasonal service may be removed in lieu of being protected from freezing. However, the Approved RPZ Assembly must be reinstalled and tested by a Certified Cross-Connection Control Technician upon reinstallation. See Figure 1 for typical RPZ installation.

#### D. Maintenance



1. Whenever an Approved RPZ Assembly is found to be defective, the Tapholder must repair or replace it within 60 days of discovery.
2. Only those replacement and/or repair parts produced or specifically recommended by the manufacturer of the Approved RPZ Assembly may be used to repair the assembly. Use of other repair parts renders the assembly noncompliant with the Regulation.

E. Testing and Inspection

1. The Tapholder must have its Approved RPZ Assembly tested and inspected by a Certified Cross-Connection Control Technician annually, and following repair or replacement, to assure the assembly is functioning properly. The Cross-Connection Control Administrator may require more frequent testing and inspections on a case-by-case basis for high Hazard connections.
2. NWCWD does not accept Approved RPZ Assemblies as compliant with the Regulation until inspected, tested, and certified compliant by a Certified Cross-Connection Control Technician.
3. The Certified Cross-Connection Control Technician must file with NWCWD a copy of the records of all such tests, inspections, repairs, and replacements, immediately, but in no case more than 10 days after completing such activities.
4. If the Approved RPZ Assembly fails the inspection, and repairs are not completed at that time, the Tapholder must ensure the Certified Cross Connection Control Technician submits a written report on the failed assembly to the Cross-Connection Control Administrator within 3 working days.
5. Repairs of Approved RPZ Assemblies must be completed within 60 days of a failed inspection. If repairs cannot be completed within 60 days, the Tapholder must request an alternative schedule from NWCWD within those 60 days. The alternative schedule will need to be approved by CDPHE.
6. The Tapholder must maintain records of all tests, inspections, repairs, and replacements of Approved RPZ Assemblies for 3 years after such tests, inspections, repairs and replacements. The Tapholder must provide NWCWD copies of such records if requested by the Cross-Connection Control Administrator.
7. The Certified Cross-Connection Control Technician must have all testing kits checked for accuracy by an independent gauge calibration company. Gauges must be adjusted to industry standards annually, and otherwise as needed. Proof of compliance must be submitted to NWCWD upon request.
8. The Tapholder must ensure the Certified Cross-Connection Control Technician uploads test reports to NWCWD's online tracking platform. Test reports will include:

- a. Assembly or method type.
- b. Assembly or method location.
- c. Assembly make, model, and serial number.
- d. Assembly size.
- e. Test date.
- f. Test results including all results that would justify a pass or fail outcome.
- g. Certified Cross-Connection Control Technician certification agency.
- h. Technician's certification number.
- i. Technician's certification expiration date.
- j. Test kit manufacturer, model, and serial number.
- k. Test kit calibration date.

## **PART 3 - VARIANCE**

### **3.01. CRITERIA FOR VARIANCE**

- A. The Regulation requires a Tapholder to install an Approved RPZ Assembly except in certain limited circumstances where the NWCWD Board may grant a Variance. The following circumstances may support consideration of a Variance:
  1. The Tapholder's premises lack adequate drainage for an appropriately located Approved RPZ Assembly.
  2. Where an appropriately located Approved RPZ Assembly would be subject to flooding.
  3. The installation of an Approved RPZ Assembly would compromise the function of an existing fire sprinkler system.
  4. The requirement to install an Approved RPZ Assembly creates an unreasonable burden on the Tapholder. Some examples include:
    - Lack of electric infrastructure needed to heat the Approved RPZ assembly;
    - Verified pressure issues;

- Surveyed Single-Family Residential premises that are not subject to Health Hazards, Backpressure, or Backsiphonage.

### **3.02. PROCEDURE FOR REQUESTING VARIANCE**

- A. To pursue a Variance, the Tapholder must first submit a request to the District Manager on the Variance Request Form contained in Appendix C. Only those requests involving one or more of the circumstances identified in 3.01.A will be considered. Submittal of a Variance Request does not guarantee approval. NWCWD recommends Tapholders schedule a meeting with NWCWD staff prior to submitting a Variance Request.
1. Tapholders requesting a Variance must provide justification for the Variance and propose an alternative solution, certified by a Master Plumber, that protects NWCWD's Water System from Contamination caused by a Backflow event.
    - a. Alternative solutions may include, but are not limited to:
      - (1) Installation of other Backflow Prevention Assemblies and Backflow Prevention Devices including, but not limited to, double checks, pressure vacuum breakers, atmospheric vacuum breakers, or hose bib vacuum breakers.
      - (2) Removal of Backflow Hazard from the premises.
      - (3) Alternative installation location for Backflow Prevention Assemblies (other than immediately downstream of the water meter).
    - b. In order for NWCWD to achieve the Cross-Connection Control "Containment" approach, the Backflow Prevention Assembly or Backflow Prevention Device will need to be installed at the Tapholder's meter. It is recommended that Tapholders seeking a Variance look into the suitability of a double check valve assembly. If the Tapholder requests another alternative solution, additional justification should include an explanation for why the proposed alternative solution is not a double check valve assembly. A Variance request for existing fire sprinkler systems must include supporting documentation, signed by a certified fire sprinkler designer, that installation of an Approved RPZ Assembly would compromise the functioning of the existing fire sprinkler system.
  2. NWCWD staff will recommend approval or non-approval to the NWCWD Board of Directors. The NWCWD Board will make the final decision on all Variance requests.
  3. If a Variance is granted, the Tapholder must enter into a written Variance Agreement with NWCWD that specifies, among other things, the terms of the Variance and the alternative requirements for complying with the Regulation. NWCWD will determine these

requirements on a case-by-case basis, which may include increased testing, inspections, and reporting obligations.

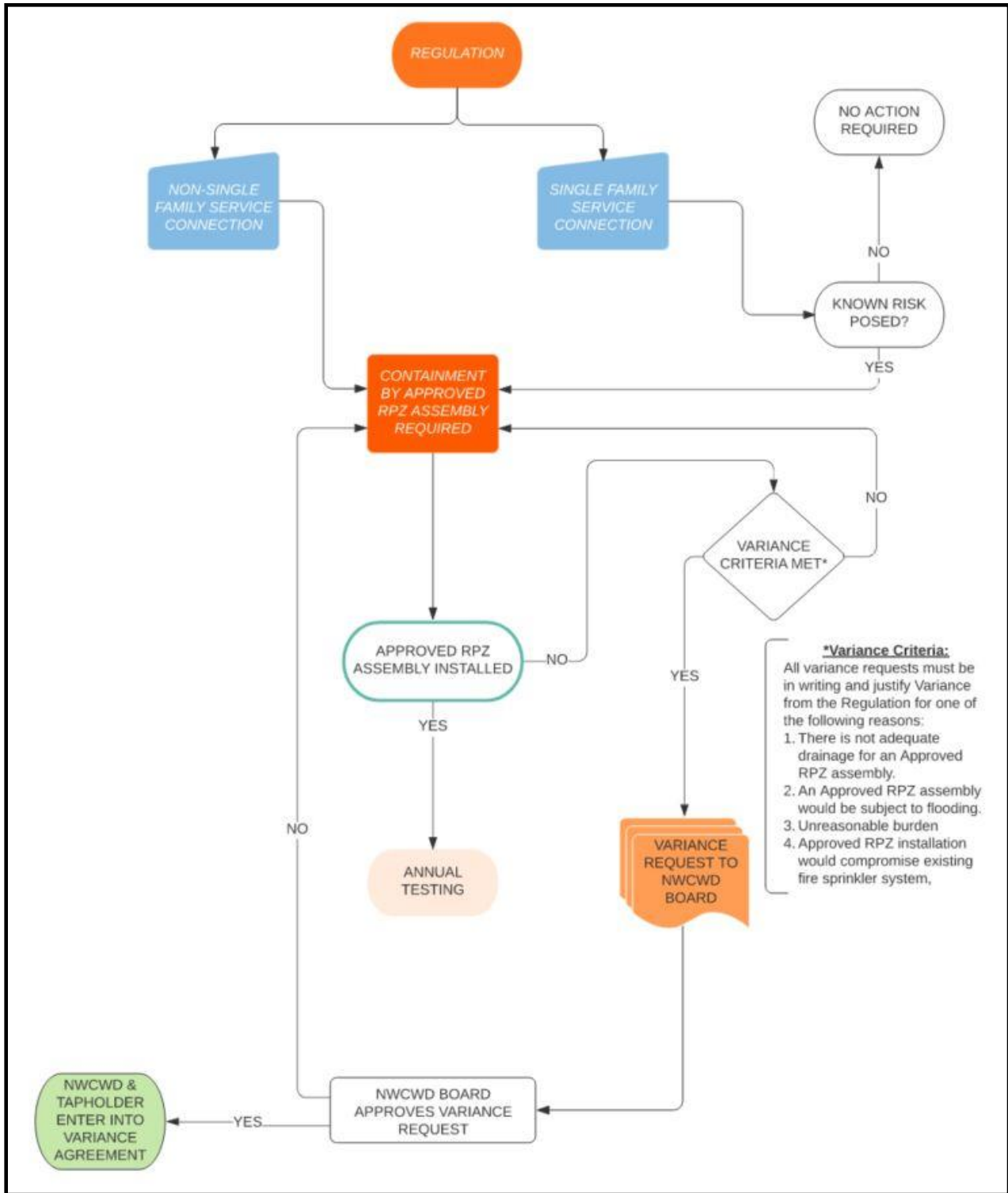


Figure 4 – Variance Procedure Flowchart

3.03. **MEANS OF BACKFLOW PREVENTION**

- A. Approved Backflow Prevention Assemblies or Backflow Prevention Devices are only those listed in USC-FCCC&HR's most current "List of Approved Backflow Prevention Assemblies," included in Appendix A, or ASSE's most current certified "ASSE Product Listings" included in Appendix B. The entire Backflow Prevention Assembly, including the isolation valves furnished as part of the assembly, must be approved by, and meet the design and performance specifications of, USC-FCCC&HR or ASSE.
- B. Backflow Prevention Assemblies and Backflow Prevention Devices that are listed in USC-FCCC&HR or ASSE approved product lists at the time they are installed, but are later removed from the USC-FCCC&HR and ASSE approved product lists, will continue to be approved by NWCWD until it no longer passes a Backflow prevention test.
- C. Questions regarding a specific assembly application should be referred to NWCWD.

# APPENDIX A

USC-FCCC&HR List of Approved Backflow Prevention Assemblies

[list.pdf \(usc.edu\)](#)

# APPENDIX B

ASSE Product Listings

<http://forms.iapmo.org/asse/listed/>

# APPENDIX C

Variance Request Form (2 pp.)





**Backflow Prevention and Cross-Connection Control  
Variance Request Form (Page 1 of 2)**

**The NWCWD Backflow Prevention and Cross-Connection Control Regulation requires all non-single family service connections, and single-family service connections that pose a Backflow risk, to install an Approved RPZ Assembly immediately downstream of the water meter or as close to that location as deemed practical by NWCWD.**

**This form is for Tapholders requesting a Variance from the requirement described above.**

**NWCWD reserves the right to deny any Variance request.**

**The following is to be completed by the Tapholder:**

Property Owner:	Contact Name:
Property Address:	Contact Phone:
Meter Number:	Contact Email:

**Category of Property (check all that apply):**

<input type="checkbox"/> Commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Industrial
<input type="checkbox"/> Other (describe as necessary)			

**Variance Criteria (check and describe all that apply):**

<input type="checkbox"/>	There is not adequate drainage for an Approved RPZ Assembly.
<input type="checkbox"/>	An Approved RPZ Assembly would be subject to flooding.
<input type="checkbox"/>	Unreasonable Burden
<input type="checkbox"/>	Installation of an Approved RPZ Assembly would compromise the function of an existing fire sprinkler system.  <i>When submitting Variance request form, include supporting documentation, signed by a certified fire sprinkler designer, that installation of an Approved RPZ Assembly would compromise the functioning of the existing fire sprinkler system.</i>

**Describe applicable Variance Criteria below:**




**Backflow Prevention and Cross-Connection Control  
Variance Request Form (Page 2 of 2)**

**Describe proposed alternative solution below:**


*Include sketch above or attach additional drawings and information as/if necessary.*

	Name (Print)	Signature	Date
<b>Tapholder</b>			
<b>Master Plumber</b>			
<b>Master Plumber Certification Information:</b>			

**For NWCWD Use Only:**

<b>Date Submitted:</b>	<b>Date Reviewed:</b>	<b>Status:</b> <input type="checkbox"/> <b>Approved</b> <input type="checkbox"/> <b>Unapproved</b>
<b>Comments:</b>		
<b>Authorized By:</b>		



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