

Prepared for:

Quillen's Point Homeowners Association, Inc.
450 Bayfront Drive
Ocean View, DE, 19970



CROSS CONNECTION CONTROL PLAN

For

Quillen's Point Homeowners Association, Inc.

Approved by the Board of Directors of Quillen's Point Homeowners Association, Inc.
February 8, 2024

DHSS Reviewed: (February 19, 2024)

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1.	INTRODUCTION	1
1.1.	Purpose	1
1.2.	Legality	1
1.3.	Local Rules and Regulations.....	1
2.	AUTHORITY/ADMINISTRATOR.....	2
2.1.	Inspector/Designated Agent.....	2
3.	INSPECTIONS	2
3.1.	Inspection	2
3.2.	Responsibility of the Owner.....	2
3.3.	Internal Plumbing System Inspection	3
3.4.	Inspection/Survey Forms	3
3.5.	Inspection Procedures	3
3.6.	Inspection Frequency.....	4
3.7.	Request for Internal Cross-connection Control Information.....	4
3.8.	Record Keeping and Data Management Software	4
4.	BACKFLOW PREVENTION ASSEMBLIES AND DEVICES	5
4.1.	Responsibility	5
4.2.	Approved Backflow Prevention Assemblies and Devices	5
4.3.	Lawn Irrigation Systems.....	5
4.4.	Testing of Backflow Prevention Assemblies	5
4.5.	Application of Backflow Preventers.....	6
5.	NEW SERVICE INSPECTION.....	7
5.1.	Procedures	7
5.2.	Inspections	7
5.3.	Compliance	7
5.4.	Non-Compliance	7
6.	EDUCATION AND AWARENESS.....	8
	APPENDIX A – Quillen’s Point Homeowners Association, Inc. RULES AND REGULATIONS	i
	APPENDIX B - FIELD INSPECTION REPORT TEMPLATE	iv
	APPENDIX C - ASSEMBLY AND DEVICE LEGEND	vi
	APPENDIX D - DEFINITIONS	vii
	APPENDIX E – DELAWARE CCC REGULATION	ix
	APPENDIX F – INVENTORY LIST	x



1. INTRODUCTION

1.1. Purpose

This document outlines the Quillen’s Point Homeowner’s Association, Inc. (QPHA) Cross Connection Control (CCC) policies for all service connections to the QPHA public water supply and is summarized as follows:

- Protect the public water supply from introduction of contaminants and pollutants through backflow.
- Promote eliminating actual and potential cross connections between the public water supply and non-potable water systems, plumbing fixtures, and sources or systems containing substances of unknown or questionable quality.
- Promote eliminating actual and/or potential cross connections between the facility’s water supply and non-potable water systems, plumbing fixtures, and sources or systems containing substances of unknown or questionable quality.
- Provide guidance for maintaining a continuing program for protection from the potential of the service line and interior cross-connections within the facility.

1.2. Legality

In accordance with the Delaware Department of Health and Social Services (DDHSS), Division of Public Health, QPHA proclaims this program as a continuing effort to maintain pure, clean, safe, potable water. QPHA is obliged to comply with the Cross-connection Control Rules in the Delaware Administrative Code 4462, Chapter 16, Section 21, and.

By reference to the DDHSS Code requirement, *“we hereby establish the “Quillen’s Point Homeowners Association, Inc. Cross-Connection Control Program.”* This program was adopted by the abovementioned organization on February 8, 2024.

1.3. Local Rules and Regulations

Legal authority to carry out and enforce the QPHA Cross-connection Control Program is provided in the QPHA Rules and Regulations adopted February 8, 2024. A copy of said Rules and Regulations can be found in Appendix A of this plan.



2. AUTHORITY/ADMINISTRATOR

QPHA shall be the Administrator of the Cross-connection Control (CCC) Program. This Cross-connection Control Program shall include, but not be limited to:

- QPHA Rules and Regulations (see Appendix A)
- Other Applicable Rules and Regulations
- Inspection Process and Requirements
- Approved Backflow Prevention Devices and Assemblies
- Testing Requirements of Backflow Prevention Assemblies
- Data Management
- Reporting
- Public Education and Awareness

2.1. Inspector/Designated Agent

QPHA or its Designated Agent (Authority/Agent) conducting inspections on behalf of QPHA must meet all State of Delaware requirements for certification and experience for backflow inspections.

3. INSPECTIONS

3.1. Inspection

Authorized Inspectors, having proper identification, shall inspect for the presence or absence of cross-connections, or for testing, repair, and maintenance of any part of the plumbing system or any cross-connection control device connected to the public water system. If the authorized inspectors believe a premises threatens the public or occupants, QPHA shall discontinue water service to protect the public supply.

- a) Residential inspections will consist of the authorized agent visually inspecting the external property of the residential home. Upon the completion of the inspection, the authorized agent shall notify the resident of compliance or corrections required to be completed. In addition, the authorized agent shall also provide the resident with a Cross Connection Control educational brochure(s).
- b) Non-residential facilities will require service line inspections. Properties found to be high hazard are required to have a Reduced Pressure Backflow Assembly (ASSE 1013) installed on the service line. Low-hazard properties require a Double Check Valve Assembly (ASSE 1015) installed on the service line.

3.2. Responsibility of the Owner

At the expense of the Owner, the QPHA may require the Owner to install, alter, replace, or repair any plumbing connected to the public water system that may threaten health. Failure, refusal, or the inability, on the part of the Owner, to correct any deficiency or violation immediately shall be in violation of the QPHA Rules and Regulations, and QPHA may deny or discontinue water service to the premises. The owner shall be responsible for eliminating all unprotected cross-connections and any connections downstream of the service line supply to the building(s).



3.3. Internal Plumbing System Inspection

Internal plumbing systems may require inspection at the discretion of QPHA. The facilities' internal water use practices shall be reviewed to determine whether there are actual or potential cross-connections to the plumbing system through which contaminants or pollutants could backflow into the public water supply or the facility's internal plumbing system.

3.4. Inspection/Survey Forms

An *Inspection/Survey Form* shall be used in every inspection, as required, and will be filed in a location as identified in Section 3.8, along with other pertinent information accumulated. This form will be used to record both existing backflow prevention devices discovered and any requirements for additional backflow prevention devices at the time of the inspection.

3.5. Inspection Procedures

Cross-connection control inspections shall be completed as follows:

- a) Identify the building to be inspected and schedule the inspection.
- b) Meet on-site with facility contact/owner/tenant.
- c) Inspect the building downstream of the service line if required and complete the Inspection Form(s) as applicable/required.
- d) Visually review all exposed piping and water outlets/uses downstream of the service connection
- e) Document all existing backflow prevention assemblies, devices, and methods (including make, model#, size, and serial # if applicable) that are currently protecting cross-connections on the *Existing Devices and Assemblies Form*
- f) Describe the point of use or equipment supplied for each backflow prevention assembly, device, or method on the *Existing Devices and Assemblies Form*
- g) Use the *CCC Requirements Form* to provide specific requirements for corrective action.
- h) Fill out an *Inspection Form* to document general findings; provide a "Compliance Status" and any follow-up action to be taken. If no action is required (*i.e., Compliant*), provide a date of the next inspection due, if applicable. If the facility requires corrective action (*i.e., Non-Compliant*), give a due date to complete corrective action(s) as designated on *CCC Requirements Form*.
- i) All corrective actions are to be completed within thirty (30) days from onsite inspection. Failure to respond to authority or comply with requirements will result in an additional notice being issued to the homeowner. Failure to respond to the second notice, homeowner will be issued a "Final Notice" with a date of discontinuance of water if corrective actions are not completed. See section 7 of the QPHA Rules and Regulations.
- j) Date all forms with the date of the in-field inspection. In addition to the field forms, a piping diagram or schematic of the plumbing system may be requested or required.
- k) Provide Educational CCC Brochure(s) at time of onsite inspection. CCC Brochures are also available upon request. Sample of brochure is located in Appendix D.



3.6. Inspection Frequency

Inspections will occur at a minimum of once every 10 years for all low hazard residential properties. All high hazard residential or non-residential properties will be inspected on an annual basis. Other factors such as new construction, new tenant occupancy, water quality complaints, maintenance, may prompt an immediate internal and/or external cross connection inspection.

3.7. Request for Internal Cross-connection Control Information

QPHA has the right to request specific cross-connection control information, including but not limited to service line protection methods, assembly test records, CCC Program information, piping drawings, etc.

3.8. Record Keeping and Data Management Software

All data obtained from the *Inspection Forms*, *Existing Devices Forms*, and *Requirements Forms* will be input into a data management system and held for no less than ten- (10) years to facilitate the CCC Program. This information will include:

- Address and location
- Owner name and contact information
- Required re-inspection frequency
- Degree of hazard classification
- List of assemblies
- Location of assemblies
- Make, model, and size of assemblies
- Testing and maintenance of assemblies
- Description of other cross-connections within the facility
 - Air gaps
 - Non-testable devices

Additionally, all written backflow incident reports and annual cross-connection control program activity reports shall be maintained for no less than ten (10) years.



4. BACKFLOW PREVENTION ASSEMBLIES AND DEVICES

4.1. Responsibility

With respect to backflow prevention devices/assemblies or methods, QPHA shall require the following:

- a) The Owner shall install and maintain assemblies, devices, and methods to protect all existing cross-connections.

4.2. Approved Backflow Prevention Assemblies and Devices

- a) QPHA accepts backflow prevention devices, assemblies, and methods (downstream of service line protection) as recognized by the Delaware Building Code.
- b) ASSE recognized backflow prevention devices, assemblies, and methods intended to protect the public water supply at the point of the service connection must be used.
- c) New installation of Reduced Pressure Backflow Prevention Assemblies intended for service line protection must conform to AWWA Standards C510 and C511 and the ASME Standards.

4.3. Lawn Irrigation Systems

Lawn irrigation systems supplied from a dedicated service line shall be equipped with a Reduced Pressure Backflow Prevention Assembly downstream of the water meter and before the first irrigation branch line. Lawn irrigation systems installed so that the supply originates downstream of the potable service line connection to a building shall be equipped with a Reduced Pressure Backflow Prevention Assembly or a Pressure Vacuum Breaker at the origination of the system. These assemblies must be installed in accordance with the DE Plumbing Code IPC 2018, Section 608, and the manufacturers' installation requirements.

4.4. Testing of Backflow Prevention Assemblies

- a) All testable¹ backflow prevention assemblies attached to the community water supply shall be tested upon installation, upon repair, upon responding to a reported backflow incident, and on an annual basis. Assemblies must be tested in accordance with applicable standards referenced within the DE Plumbing Code, Section 608, and ASSE 5000 Series. All testable backflow prevention equipment installed at a residential property will be tested annually. ***Hose bibb connections, with approved backflow prevention devices, are not required to be tested annually.***
- b) Equipment used to field test assemblies must be certified and calibrated for accuracy annually.
- c) Assembly test form(s) to record test results will be maintained by the Owner and submitted to QPHA as required.
- d) The Owner shall have all assemblies tested by a tester having completed the 40-hour ASSE Backflow Prevention Assembly Tester Training and Certification Course. All testers must also complete a recertification exam at an interval not to exceed once every three years.

¹ Appendix C contains a list of testable backflow prevention devices.



- e) QPHA shall reserve the right to direct and administer testing and maintenance of any backflow prevention assemblies installed as service line protection. All costs associated with testing and any necessary repairs of these assemblies shall be the owner’s responsibility. If QPHA assumes the responsibility for backflow assembly maintenance, all costs for testing, repairs, and installations shall be charged back to the Owner.
- f) Failure to test assemblies and submit appropriate test forms located at the service line may be provided in the Rules and Regulations.

4.5. Application of Backflow Preventers

The following table outlines acceptable backflow protection for certain types of cross-connection conditions that may be encountered. The table will be used as a guideline in determining adequate cross-connection control measures, not as an absolute requirement; see Appendix G for sample installation schematics.

Backflow Preventer Type	Degree of Hazard	Application	Applicable Standard
Backflow prevention assemblies:			
Double Check Valve Assembly (DCV)	Low hazard	Backpressure or backsiphonage	ASSE 1015, AWWA C510, CSA B64.5, CSA B64.5.1
Double Check Detector Assembly (DCDA)	Low hazard	Backpressure or backsiphonage	ASSE 1048
Pressure Vacuum Breaker Assembly (PVB)	High or low-hazard	Backsiphonage	ASSE 1020, CSA B64.1.2
Reduced Pressure Principle Backflow Prevention Assembly (RPBP)	High or low-hazard	Backpressure or backsiphonage	ASSE 1013, AWWA C5411, CSA B64.4, CSA B64.4.1
Reduced Pressure Detector Assembly (RPDA)	High or low-hazard	Backsiphonage	ASSE 1047
Spill-resistant Vacuum Breaker Assembly (SVB)	High or low-hazard	Backsiphonage	ASSE 1056
Backflow prevention devices:			
Antiphon-type Fill Valve (FV)	High hazard	Backsiphonage	ASSE 1002, CSA B125.3
Atmospheric Vacuum Breaker (AVB)	High hazard	Backsiphonage	ASSE 1001, CSA B64.1.1
Backflow Preventer for Carbonated Beverage Equipment (VMBP)	Low hazard	Backpressure or backsiphonage	ASSE 1022
Backflow Preventer with Intermediate Atmospheric Vent (VDCV)	Low hazard	Backpressure or backsiphonage	ASSE 1012, CSA B64.3
Dual Check (DC)	Low hazard	Backpressure or backsiphonage	ASSE 1024, CSA B64.6
Hose Connection Backflow Preventer (HCBP)	High or low-hazard	Low head backpressure or backsiphonage	ASSE 1052, ASME A112.21.3, CSA B64.2.1.1



Backflow Preventer Type	Degree of Hazard	Application	Applicable Standard
Backflow prevention devices (continued)			
Hose Bibb Vacuum Breaker (HBVB)	High or low-hazard	Low head backpressure or backsiphonage	ASSE 1011, ASME A112.21.3, CSA B64.2, CSA B64.2.1
Anti-frost Hoe Bibb Vacuum Breaker	High or low-hazard	Low head backpressure or backsiphonage	ASSE 1011, ASME A112.21.3, CSA B64.2, CSA B64.2.1
Lab Faucet Vacuum Breaker (LFVB)	High or low-hazard	Backsiphonage	ASSE 1035, CSA B64.7
Vacuum Breaker Wall Hydrants (HBIVB)	High or low-hazard	Low head backpressure or backsiphonage	ASSE 1019, ASME A112.21.3, CSA B64.2.2
Other means or methods:			
Air Gap (AG)	High or low-hazard	Backsiphonage	ASME A112.1.2
Air Gap Fittings for use with Plumbing Fixtures, Appliances, and Appurtenances	High or low-hazard	Backsiphonage	ASME A112.1.3
Barometric Loop	High or low-hazard	Backsiphonage	MI Plumbing Code Sec. 608.13.4

5. NEW SERVICE INSPECTION

5.1. Procedures

Government Plumbing Inspectors, Building Inspector, and building contractor(s) shall review all plumbing plans and permits for a proposed building, and will review the QPHA Cross-connection Control Plan and Backflow Prevention requirements.

5.2. Inspections

The Designated Agent conducting the cross-connection control inspection shall inspect the building for compliance with the Cross-connection Control Program.

5.3. Compliance

Upon completion of the cross-connection control inspection and determination that the building complies and has met any required actions of this plan, a certificate of occupancy and water service may be initiated as applicable.

5.4. Non-Compliance

If the property does not comply with the Cross-connection Control Program, QPHA shall enforce this plan as required. The water service and the certificate of occupancy will not be initiated until compliance is achieved and approved by government inspectors.



6. EDUCATION AND AWARENESS

QPHA shall attempt to educate the public about cross-connections by distributing pamphlets and other materials. Education content will comply with DDHSS, Div. of Public Health, 16 DE Administrative Code 4462, Section 21.2.5.1. A sample of the educational material is shown below.

INSIGHTS TO PROTECT YOUR DRINKING WATER

Do...

- Ensure that lawn irrigation systems have proper backflow protection. Backflow Prevention Assemblies must be tested at appropriate intervals by a certified tester, as required by your local water provider and plumbing codes.
- Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home.
- Make sure water treatment devices such as water softeners have the proper "air gap", which is a minimum of one inch above any drain.

DON'T...

- Submerge hoses in buckets, pools, tubs, sinks or ponds.
- Use spray attachments without a backflow prevention device.
- Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged drain pipe. Always be sure there is a one-inch "air gap" separation.

Remember, we're all in this together – and together we can work to keep your drinking water safe from the hazards of backflow and cross-connections to the public water system.

For more information, contact your local water utility, or visit www.watercustomer.com

RESOURCES:

- Delaware Department of Health and Social Services Chapter 16, Code 4462 (21.0 Cross-Connection Control)
4462 Public Drinking Water Systems
- Environmental Protection Agency (EPA)
www.epa.gov/ground-water-and-drinking-water
- American Water Works Association (AWWA)
www.awwa.org/
- Delaware Rural Water Association (DRWA)
www.drwa.org
- USC-Foundation for Cross Connection Control
<https://fccchr.usc.edu/>

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THE SAFE WATER AUTHORITY.

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PROTECTING THE SAFETY OF YOUR HOME'S DRINKING WATER

From the Hazards of Cross-Connections and Backflow



DELAWARE

AVOIDING BACKFLOW THROUGHOUT THE HOME

What is a Cross Connection?

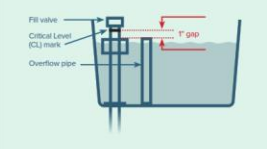
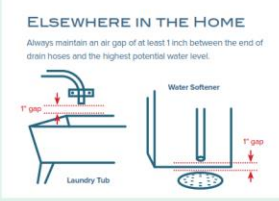
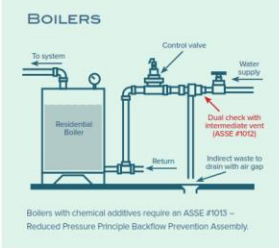
A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution.

BACKSIPHONAGE
May occur due to a loss of pressure in the municipal water system during a fire fighting emergency, a water main break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water or the public water system.

BACKPRESSURE
May be created when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied from the public water system. This may cause contaminated water to be pushed into your plumbing system through an unprotected cross-connection.

HOW DOES CONTAMINATION OCCUR?
When you turn on your faucet, you expect the water to be as safe as when it left the treatment plant. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as Backflow. There are two situations that can cause water to flow backward: backsiphonage and backpressure.





APPENDIX A – Quillen’s Point Homeowners Association, Inc. RULES AND REGULATIONS

These rules and regulations are adopted as required by the Delaware Division of Public Health of the Department of Health and Social Services, Office of Drinking Water (Division). They are intended to apply to the Cross-Connection Control Rules, 16 Del.C §4462, State of Delaware, Regulations Governing Public Drinking Water Systems, § 21.0 the EPA rules on the control of Lead and Copper, pursuant to EPA regulations found at Title 40, Chapter 1, Subchapter D, Part 141, Subpart I, §§141 et. seq. as enforced through the State of Delaware, Office of Drinking Water and any other regulations promulgated by the EPA, the State of Delaware or any of their authorities.

1, The Quillen’s Point Homeowner’s Association, Inc.’s (“QPHA”) Water System is owned by the QPHA for the benefit of its Owner/Members.

2. The water system is deemed a “Public Water System” (PWS) by the State of Delaware and therefore subject to the rules and regulations of the State of Delaware regarding Public Water Systems.

3. The QPHA deems it appropriate, necessary, and proper for the protections of persons and property and for the preservation of the public health, welfare, and safety of its Owner/Members to adopt these rules and regulations pertaining to the QPHA Public Water System.

For the reasons stated above,

1. QPHA adopts by reference the Delaware Division of Public Health of the Department of Health and Social Services, Office of Drinking Water (Division), Cross-Connection Control Rules. 16 Del. C. § 4462, State of Delaware, Regulations Governing Public -Water Systems, § 21.0.
2. QPHA shall comply with the EPA regulations which appear at Title 40, Chapter 1, Subchapter D, Part 141, Subpart I, §§141 et. seq. regarding the control of lead and copper.
3. QPHA shall cause periodic surveys to be made of all properties served by the public water system. The frequency of surveys and resurveys based on potential health hazards involved shall be as established by the QPHA Board based on



requirements of the regulations and with the input of any consultant retained by QPHA or by water authorities.

4. A representative of QPHA shall have the right to access the exterior of any property served by a connection to the public water system for the purpose of surveying the piping system where it connects to the public water system, or extensions thereof, for cross-connections and/or lead components. On request, the owner, lessees, and/or occupants of any property so served shall furnish to the survey agency any pertinent information regarding the piping system or systems on such property which may affect the public water system. Denial or extended delay of such information or refusal of access, when requested, shall, by definition, be deemed evidence of the presence of cross-connection or lead, subject to state regulation.
5. The QPHA, in its sole discretion and based on advice from trained professionals who are qualified and who hold a Certificate in ASSE (American Society of Sanitary Engineers) Cross Connection Control Surveyor for Cross Connection Control or other certifications as required by the State of Delaware, will make determinations about which type of backflow preventer shall be required at locations where unprotected cross connections exist.
6. Hazard Level - Piers, marinas, docks, and waterfront facilities which include water service are deemed by state water authorities to represent a high hazard to the public water system. All other potential cross connection devices within the community will also be inspected and inventoried and a determination of the hazard potential of the devices will be made at the time of inspection.
7. Notice of violation - water service discontinued. After reasonable notice to any property Owner/Member and/or lessee, the QPHA is hereby authorized and directed to discontinue water service to any property wherein any connection in violation of these rules and regulations exists and to take such other precautionary measures deemed necessary to prevent or eliminate any threat of contamination of the public water system. Water service to such property shall not be restored until the safety of the cross-connection(s) has been assured, in compliance with these rules and regulations.
8. All backflow prevention assemblies considered “testable” by Delaware’s water authorities shall be tested initially upon installation to be sure that the assembly is working properly. Subsequent testing of assemblies shall be performed on an annual basis as required by QPHA in accordance with Division requirements. Devices not considered “testable” need not be tested or certified annually. A list of



“testable” devices shall be provided to Quillen’s Point owners. Only individuals who are approved and State of Delaware certified shall be qualified to perform such testing. Those individual(s) shall certify the results of their testing. The cost of testing such assemblies shall be borne by the property owner, not by QPHA. All test results are required to be submitted to the QPHA or its designated representatives annually to ensure compliance is maintained. These records are to be kept for no less than ten years.

9. The cost of bringing a property into compliance with the requirements of the Federal and Delaware regulations shall be the responsibility of the Owner/Member.
10. Failing to test backflow assemblies as required, failing to maintain backflow assemblies as required, maintaining unprotected cross-connections, submitting false information regarding cross-connections or testing of cross-connections and/or any other violation of the provisions of this article shall subject the Owner/Member of that property to a fine to be determined by the Board of Directors of QPHA and the property shall be subject to the disconnection of water service until the deficiency is corrected. In addition to discontinuation of water service, any person or Owner/Member found to have violated any of the provisions of these rules and regulations shall be subject to a fine to be determined by the Board of QPHA in each individual instance and shall bear all costs incurred by the QPHA to bring the water system into compliance on that individual’s property.



APPENDIX B - FIELD INSPECTION REPORT TEMPLATE

Facility Comments	
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Facility Information			Mailing Information		
Facility Name:			First:	Last:	
Address:			Address:		
Address 2:			Address 2:		
City:	State:	Zip:	City:	State:	Zip:
Phone:	Ext:	Fax:	Phone:	Ext:	Fax:
Contact Name:			Email:		

Inspection Date	<input type="text"/>	Facility Type	<input type="text"/>	Requirements	<input type="text"/>
Inspection Status	<input type="text"/>	Facility Status	<input type="text"/>	Assemblies	<input type="text"/>
Inspection Frequency	<input type="text"/>	Test Cycle	<input type="text"/>	Devices	<input type="text"/>
High Hazard	<input type="checkbox"/>			Last Insp Notice	<input type="text"/>
				Next Insp Notice	<input type="text"/>

Containment:

Potable Supply	<input type="text"/>	Private Well	<input type="text"/>	Reclaim Water	<input type="text"/>
Fire Supply	<input type="text"/>	Surface Water	<input type="text"/>	Grey Water	<input type="text"/>
Containment Existing	<input type="checkbox"/>	Containment Required	<input type="checkbox"/>	FP Properly Protect	<input type="checkbox"/>

Isolation Hazards:

Facility Comments	
Inspector's Name	<input type="text"/>
Contact's Name	<input type="text"/>
Contact's Signature	<input type="text"/>



APPENDIX C - ASSEMBLY AND DEVICE LEGEND

Backflow Preventer Legend			
A.S.S.E Standard	Legend	Acronym	Testable Device
1001	Atmospheric Type Vacuum Breakers	AVB	No
1002	Anti-siphon Fill Valves (Ballcocks)	ASBC	No
1011	Hose Connection Vacuum Breaker	HBVB	No
1012	Backflow Preventer w/Intermediate Atmospheric Vent	VDCV	No
1013	Reduced Pressure Backflow Prevention Assembly	RPBP	Yes
1015	Double Check Valve Backflow Prevention Assembly	DCV	Yes
1019	Vacuum Breaker Wall Hydrants	HBIVB	No
1020	Pressure Vacuum Breaker Assembly	PVB	Yes
1022	Backflow Preventer for Carbonated Beverage Machine	VMBP	No
1024	Dual Check Valve Type Backflow Preventers	DC	No
1024	Residential Dual Check	RDC	No
1035	Laboratory Faucet Backflow Preventer	LFVB	No
1037	Pressurized Flushing Devices (Flushometers)	PFD	No
1047	RP Detector Backflow Prevention Assembly	RPDA	Yes
1048	Double Check Detector Backflow Prevention Assembly	DDCV	Yes
1052	Hose Connection Backflow Preventer	HCBP	No
1055	Chemical Dispensing Systems	AG	No
1056	Spill Resistant Vacuum Breaker Assembly	SVB	Yes
1057	Freeze Resistant Yard Hydrant W/Backflow		No
A112.1.2	Air Gap	AG	No
	Single Check Valve	SCV	No



APPENDIX D - DEFINITIONS

Air Gap: The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying water or waste to a tank, plumbing fixture, receptor, or other assembly and the flood-level rim of the receptacle. These vertical, physical separations must be at least twice the diameter of the water supply outlet and at no time less than 1 inch.

Approved: Accepted by the authority responsible as meeting an applicable specification stated or cited in this plan or as suitable for the proposed use.

Auxiliary Water System: Any water system on or available to the premises other than the purveyor's approved public water supply.

Backflow: The undesirable reversal of flow in a potable water distribution system due to a cross-connection.

Backflow Preventer: An assembly, device, or method designed to prevent backflow.

Backflow Prevention Assembly: A mechanical backflow preventer used to prevent backward flow of contaminants or pollutants into a potable water distribution system. An assembly has a resilient seated, full-flow shut-off valve before and after the backflow preventer, making it testable in line.

Backflow Prevention Device: A mechanical backflow preventer without shut-off valves. Typically, these devices are not testable in the field.

Backpressure: A pressure higher than the supply pressure caused by a pump, elevated tank, boiler, or any other means that may cause backflow.

Backsiphonage: Backflow caused by negative or reduced pressure in the supply piping.

Contaminant: Any foreign substance (liquid, solid, or gas) that degrades the quality of water and creates a health hazard.

Cross-connection: A connection or potential connection between any part of a potable water system and any other environment containing other substances in a manner that, under any circumstances, would allow such substances to enter the potable water system. Other substances may be gases, liquids, or solids, such as chemicals, waste products, steam, water from other sources (potable or non-potable), or any matter that may change the color or add an odor to the water.

Owner: Person or entity receiving service from the public water distribution system.

Pollutant: Any foreign substance (liquid, solid, or gas) that degrades water quality to constitute a non-health hazard or impair the usefulness of the water.

Potable Water: Water safe for human consumption as described by the public health official having jurisdiction.



Non-Potable Water: Water unsafe for human consumption or questionable quality.

Reclaimed Water: Water that, as a result of the treatment of wastewater, is suitable for direct beneficial use or a controlled use that would not otherwise occur and is not safe for human consumption.

Service Line Protection: Installation of an approved backflow prevention device, assembly, or method at the point of service to confine potential contamination caused by a cross-connection within the facility where it arises; also referred to as containment.



APPENDIX E – DELAWARE CCC REGULATION

21. Cross-Connection Control

21.1. Cross-connection control requirements and prohibitions.

21.1.1. No public water system shall install or maintain a water service connection to any premises where actual or potential cross-connections to a public water system exist unless such actual or potential cross-connections are eliminated or controlled to the satisfaction of the owner of the public water system and the Division.

21.1.2. No public water system shall install or maintain any connection whereby water from an auxiliary water system may enter a public water system unless the auxiliary water supply and the method of connection.

21.1.3. In accordance with subsection 1.12.1, public water systems shall maintain acceptable water pressure throughout the distribution system so that the risk of backflow is reduced.

21.1.4. If a cross-connection exists or backflow occurs at a consumer's water system, the public water system may discontinue service to the consumer and water service shall not be restored until the deficiencies have been corrected.

21.2. Cross-connection control programs.

21.2.1. A public water system shall develop a plan for a comprehensive cross-connection control program for the elimination, prevention, and control of cross-connections appropriate to the number of service connections, size of the distribution system, and type of customers. The cross-connection control program shall include an individual designated by the public water system and appropriately trained and experienced in cross-connection control programs to be responsible for the program.

21.2.2. A cross-connection control program shall include an inventory and records of testing, repairs, and maintenance of all backflow prevention assemblies, and backflow elimination methods.

21.2.3. A cross-connection control program shall include appropriate policies to complete assessments of customer premises for potential cross-connections to establish hazard criteria to classify customer premises consistent with Table 1, and to determine the degree of hazard and adequacy of existing preventive measures.

Table 1 Backflow Prevention Assembly Types Required for Service Line Containment	
Premise - Degree of Hazard	
High Hazard	Low Hazard
Air Gap	Air Gap
Reduced Pressure Principle Backflow Prevention Assembly	Reduced Pressure Principle Backflow Prevention Assembly
-	Double Check Valve Assembly

21.2.4. An approved backflow prevention assembly or backflow elimination method shall be installed at premises where the following conditions exist in a location intended to prevent backflow into the distribution system:

21.2.4.1. Premises having auxiliary water system:

21.2.4.2. Premise types that are deemed by the public water system or the Division to represent a health or high hazard to the public water system, to include but not be limited to:

<i>Agricultural facilities (e.g., farms, dairies)</i>	<i>Beverage bottling plants</i>	<i>Car washes</i>
<i>Chemical plants</i>	<i>Dry cleaners (on site processing)</i>	<i>Film processing plants</i>
<i>Food processing plants</i>	<i>Laboratories</i>	<i>Medical facilities</i>
<i>Mortuaries</i>	<i>Metal plating industries</i>	<i>Mortuaries</i>
<i>Petroleum processing/storage plants</i>	<i>Piers, marinas, docks and waterfront facilities</i>	
<i>Radioactive material processing plants</i>	<i>Wastewater treatment facilities</i>	

21.2.4.3. Premises where having internal cross-connections that, in the judgment of the public water system, are not correctable or are impractical to determine if cross-connections exist due to intricate plumbing arrangements:

21.2.4.4. Premises where because of security requirements or other prohibitions, it is impossible to complete a cross-connection control survey: or

21.2.4.5. Premises having a history of cross-connections being established or reestablished.

21.2.5. In lieu of assessments and installation of backflow prevention assemblies at customer premises deemed low hazard, a public water system may implement a public education program.

21.2.5.1. The public education program shall include, at minimum:

21.2.5.1.1. Causes and dangers of backflow and cross-connections, including health effects;

21.2.5.1.2. Information on how to identify actual and potential cross-connections

21.2.5.1.3. Preventive measures to reduce or eliminate cross-connection and backflow risks; and

21.2.5.1.4. Information on reporting suspected cross-connections to the

21.3. Corrections and protective devices.

21.3.1. Backflow prevention assemblies shall conform to the standards of the American Society of Sanitary Engineering (ASSE), the American Water Works Association (AWWA), and the American Society of Mechanical Engineers (ASME)

21.4. Cross-connection control records and reporting.

21.4.1. All backflow prevention assembly test records which document the test results of assemblies designed to protect the public water system shall be retained on file for a period of no less than 10 years.

21.4.2. All cross-connection control survey records which document results from the monitoring of cross-connections shall be retained on file for a period of no less than 10 years.

21.5. Violations.

21.5.1. The following items shall be deemed to be violations of these regulations:

21.5.1.1. Failure to develop and implement a comprehensive cross-connection control program in accordance with Section 3.0 of this regulation within three years of the effective date of these regulations;

21.5.1.2. Failure to implement the cross-connection control program as prescribed; and

21.5.1.3. Failure to maintain all backflow prevention assembly test records on file for at least 10 years.

21.6. Penalty Clause.

Any person who neglects or fails to comply with these regulations shall be subject to penalty as provided in 16 Del.C. §122(3)(c).



APPENDIX F – INVENTORY LIST

Onsite inspections are tentatively scheduled to be performed in the Spring of 2024. Appendix F will contain addresses of all properties inspected, inspection frequencies, backflow devices/assemblies identified and a timetable for backflow prevention testing and reporting.

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From: Scheers, Sharon (DHSS) Sharon.Scheers@delaware.gov 
Subject: RE: Quillens Point Home Owners Association, Inc (DE0000924, Quillens Point)
Date: March 5, 2024 at 9:19 AM
To: Jerry Ayers jayers@hydrocorpinc.com, [REDACTED]
Cc: [REDACTED]

SS

Good Morning Jerry, Our office doesn't approve the CCC plans we just review them and offer recommendations to the plans. Your updates look good and you can use the date of Feb 19, 2024 when I email "Thanks for the updates."

Thanks
Sharon

From: Jerry Ayers <jayers@hydrocorpinc.com>
Sent: Monday, March 4, 2024 3:08 PM
To: Scheers, Sharon (DHSS) <Sharon.Scheers@delaware.gov>

Cc: [REDACTED]

Subject: RE: Quillens Point Home Owners Association, Inc (DE0000924, Quillens Point)

Good Afternoon,

I am just following up to see if the changes applied to the Quillens Point Home Owners Association, Inc CCC Plan were approved.

Is there an approval date we can apply to the cover of the "Quillens Point Home Owners Association, Inc CCC Plan"?

Thank you,
Jerry Ayers

From: Scheers, Sharon (DHSS) <Sharon.Scheers@delaware.gov>
Sent: Monday, February 19, 2024 8:48 AM
To: Jerry Ayers <jayers@hydrocorpinc.com>

Cc: [REDACTED]

Subject: RE: Quillens Point Home Owners Association, Inc (DE0000924, Quillens Point)

Thanks for the updates!

From: Jerry Ayers <jayers@hydrocorpinc.com>
Sent: Friday, February 16, 2024 3:47 PM