

Alternative to the Installation of an Approved Backflow Prevention Device on Service Connections Where There is an Auxiliary Water System

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I. PURPOSE

Under paragraph (C)(2) of rule 3745-95-04 of the Administrative Code (OAC) public water systems are not required to install an approved backflow prevention device on service connections where there is an auxiliary water system on the real property that is owned or under control of the consumer and adjacent to the premises, provided the system satisfies the conditions of paragraphs (C)(2)(a) through (C)(2)(e). This document is intended to provide guidance and implementation materials to assist public water systems in achieving compliance with this alternative requirement. It is intended that utilization of these procedures and materials will result in compliance with the requirements of OAC 3745-95-04(C)(2) **but are provided only as guidance and are not intended to limit a public water system from utilizing other means to achieving compliance.**

II. BACKGROUND

OAC Rule 3745-95-04 became effective May 1, 2003. It provides an alternative to the requirement to install an approved backflow prevention device on service connections to premises that have an auxiliary water system on the real property adjacent to the premises that is owned or under control of the consumer but not part of the premises. The provider of water may choose the alternative requirement at their discretion. However, for the alternative to be permitted the supplier of water must address each of the following items: (a) determine, on a case-by-case basis, that a backflow prevention device is not required taking into consideration conditions that exist on the premises and adjacent real property; (b) require the consumer to sign a cross-connection control agreement which specifies penalties for creating a connection between the public water system and the auxiliary water system; (c) conduct inspections at least every twelve months; (d) maintain an inventory of consumers with auxiliary water systems; and (e) develop and implement an education program to inform all consumers served by the public water system of the dangers of cross-connections and how to eliminate them.

Applicable definitions:

“Auxiliary water system” means any water system on or available to the premises other than the public water system. These auxiliary water systems shall included used water or water from a source other than the public water system, such as wells, cisterns or open reservoirs that are equipped with pumps or other prime movers, including gravity.

“Premises” means any building, structure, dwelling or area containing plumbing or piping supplied from a public water system.

“Real property” as used in OAC 3745-95-04(C) is intended to mean the land surrounding, or adjacent to, the premises and is owned or controlled by the consumer of water.

III. GUIDANCE

1. OAC Rule 3745-95-04(C) states the following:

- (C) The following requirements apply to premises that have an auxiliary water system on the real property that is owned or under control of the consumer and adjacent to the premises.
 - (1) A physical separation shall be maintained between the public water system or a consumer's water system and the auxiliary water system as required by paragraph (B) of rule 3745-95-02 of the Ohio Administrative Code; **and**
 - (2) An approved backflow prevention device shall be installed on each service connection serving the consumer's water system, unless the supplier of water does all of the following:
 - (a) Determines, on a case-by-case basis, that the installation of an approved backflow prevention device on a service connection is not required in consideration of factors including, but not limited to, the past history of cross connections being established or re-established on the premises, the ease or difficulty of connecting the auxiliary water system with the public water system on the premises, the presence or absence of contaminants on the property or other risk factors; **and**
 - (b) Requires the consumer to sign an agreement which specifies the penalties, including those set forth in rule 3745-95-08 of the Ohio Administrative Code, for creating a connection between the public water system and the auxiliary water system; **and**
 - (c) Conducts or causes to be conducted an inspection at least every twelve months to certify that no connection or means of connection has been created between the public water system and the auxiliary water system; **and**
 - (d) Maintains an inventory of each consumer's premises where an auxiliary water system is on or available to the premises, or on the real property adjacent to the premises; **and**
 - (e) Develops and implements an education program to inform all consumers served by the public water system about the dangers of cross-connections and how to eliminate cross-

connections.

2. Additional guidance documents

To facilitate compliance with OAC Rule 3745-95-04(C)(2), four documents have been developed. These documents collectively address all components identified in OAC Rule 3745-95-04(C)(2) and are contained as appendixes to this guidance. The supplier of water is encouraged to utilize these materials or equivalent materials in order to develop and implement an acceptable program. Each of the four documents are described below.

1. Annual Survey for Auxiliary Water Systems

This survey form provides a means for evaluating the conditions that exist on the premises and the real property. It is intended to assist in achieving compliance with OAC Rule 3745-95-04(C)(2)(a), (c) and (d). This survey form is intended for use by an employee or other person acceptable to the supplier of water when surveying properties with auxiliary water systems. The survey form may be used for both the initial and annual surveys. Public water systems may modify this survey form or develop their own survey to suit their needs as long as all of the information required by OAC Rule 3745-95-04(C)(2)(a) is included.

If a backflow prevention device is deemed necessary on the service connection, the type of device required must be determined by the supplier of water based on the degree of hazard. The consumer has the option of permanently eliminating the auxiliary water system or other potential backflow hazard in lieu of installing a backflow prevention device and should be encouraged to do so as the option most protective of public health. The survey should be signed and dated by the person conducting the survey.

There is no requirement for retention of the surveys. However, it is recommended that surveys be maintained by the supplier of water for at least five years. This is intended to provide a history of the establishment of cross-connections or other backflow hazards.

2. Recommended Agreement Language

This document was developed to assist the public water system in meeting the requirements of OAC Rule 3745-95-04(C)(2)(b). It provides recommended language for the supplier of water to include for a suitable agreement and includes the penalties, as set forth in OAC Rule 3745-95-08, for creating a connection between the public water system and the auxiliary water system. Definitions of specific terms should also be included as well as references to any applicable ordinances, policies, rules, regulations or user agreements established by the supplier of water.

3. Backflow Education Program Minimum Requirements

The Cross-Connection Education Program, Recommended Learning Objectives document is intended to provide the supplier of water a framework for developing educational materials for implementing an educational program as required by OAC Rule 3745-95-04(C)(2)(e).

The supplier of water is required to develop and implement a backflow education program to educate all consumers on the dangers of cross-connections and how to eliminate cross-connections when the alternative to the installation of an approved backflow prevention device is offered. If the supplier of water does not offer this option, a backflow education program is not required although it is strongly encouraged as a component of all backflow prevention programs.

The method of delivery is not specified by rule but may include: mail, posting on the internet, public meetings, hand delivery, publication in newspaper(s), inclusion in the consumer confidence report or public service announcements. Educational materials may include brochures, fact sheets, audio and video recordings, posters and presentations.

4. *Educational Brochure*

“Backflow Prevention and Cross-Connection Control, Protecting Our Public Water System” is a brochure the Division of Drinking and Ground Waters (DDAGW) developed as an educational tool for water systems to assist in achieving compliance with the educational program required by OAC Rule 3745-95-04(C)(2)(e). The brochure covers the information DDAGW believes customers need to know about backflow prevention and complying with Ohio backflow prevention rules. The brochure is available both in “pdf” and “Microsoft Word” formats on the division’s web site. Public water systems are not required to utilize this brochure and may utilize material from other sources or develop their own educational materials.

All program material must be available for review by Ohio EPA Division of Drinking and Ground Waters.

IV. ATTACHMENTS

- A. Instructions for Completing Annual Survey for Auxiliary Water Systems
- B. Annual Survey for Auxiliary Water Systems
- C. Cross-Connection Education Program Requirements and Recommended Learning Objectives
- D. Recommended Agreement Language
- E. Backflow Prevention and Cross Connection Control, Protecting Our Public Water System

V. HISTORY

The Division of Drinking and Ground Waters first issued this guidance on March 16, 2004. The guidance was then amended to include new language for the educational brochure and reissued on June 11, 2004.

Instructions for Completing Annual Survey for Auxiliary Water Systems

Introduction

An approved backflow prevention device shall be installed on each service connection serving any customer that has an auxiliary water system, unless the supplier of water determines, on a case-by-case basis, that the installation of an approved backflow prevention device on a service connection is not required. This decision must take into consideration several risks which are described below. The public water system is required to conduct or cause to be conducted an inspection at least every twelve months to certify that no connection or means of connection has been created between the public water system and the auxiliary water system. Auxiliary water system means any water system on or available to the premises other than the public water system.

The “Annual Survey for Auxiliary Water Systems” is intended to be used by public water systems or their representatives during an inspection for documentation purposes and to help evaluate if the alternative to installation of an approved backflow prevention device is appropriate. This survey may be used for both the initial and annual surveys. The survey form consists of three sections to help ensure the collection of pertinent information. The instructions provide an explanation for each section of the survey. It is the responsibility of the public water system to make the final determination if the alternative to the installation of an approved backflow prevention device will be permitted.

Completing the Survey

The survey is designed to direct the surveyor in such a manner as to address all the risk factors that must be reviewed in accordance with Ohio Administrative Code (OAC) 3745-95-04(C)(2)(a). These risk factors include, but are not limited to, the past history of cross-connections being established or re-established on the premises, the ease or difficulty of connecting the auxiliary water system with the public water system on the premises, the presence or absence of contaminants on the adjacent real property or other risk factors.

The opening paragraph must be completed to include the water system name, date and address of the premises served by the public water system. You may want to include additional site information such as account number or other identifiers for tracking purposes.

Potential Contaminant Source Inventory: A table has been designed to determine if any potential contaminant sources, that represent a backflow hazard, are present on the real property or premises. Real property refers to the land surrounding the premises and is owned or controlled by the consumer of water. Premises is defined in the Ohio Administrative Code as any building, structure, dwelling or area containing plumbing or piping supplied from a public water system. If any potential contaminant source, including an auxiliary water system, is connected to the public water system or otherwise contained on the premises then an appropriate backflow prevention device is required by OAC 3745-95-02 unless the actual or potential cross-connections are abated or controlled to the satisfaction of the supplier of water.

Example Table

Potential Contaminant Source	Present (Y/N) on		Connected to PWS or Auxiliary System (AS)		Comments
	Adjacent Property	Premises	PWS	AS	
Feed lot/livestock holding area/barnyard	Y	N	PWS <input type="checkbox"/>	AS <input checked="" type="checkbox"/>	Barn with horses
Irrigation system	Y	Y	PWS <input type="checkbox"/>	AS <input checked="" type="checkbox"/>	Control valving within the house served by PWS.

In the above example the barn connected to the auxiliary system would not necessitate the need for a backflow prevention device on the service line. However, the irrigation system on the premises, would require a backflow prevention device be installed on the service connection serving the house in accordance with OAC 3745-95-02. This is due to the auxiliary water system containing a portion of its plumbing within the premises even though there is no direct connection.

Auxiliary Water System Information: Questions #2 and #3 are intended to evaluate the ease or difficulty in establishing a cross-connection between the auxiliary water system and the public water system. There is no minimum separation distance established by the Ohio Administrative Code and must be determined by the public water system on a case-by-case basis. A consistent approach is recommended. Tap-to-tap connections have occurred in the past with the use of a garden hose. This fact may help in establishing minimum separation requirements between the auxiliary water system and the public water system. A drawing should be developed during the initial survey that indicates the location of any auxiliary water system(s) and the distance(s) from the premises. This drawing should be reviewed during subsequent annual surveys to ensure no changes have been made that would necessitate the need for the installation of a backflow prevention device.

Past Problems/Ease of Establishing a Cross-connection: Questions #4 through #7 are intended to identify past problems and further evaluate the ease of establishing a cross-connection. If any of these questions are answered “Yes” then it is recommended a backflow prevention device be required on the service line unless appropriate corrective actions have been taken as determined by supplier of water.

Survey Results

The surveyor has the option of either requiring or not requiring the installation of a backflow prevention device as a result of the information collected through the survey. If a backflow prevention method or device is required, the type should be determined and documented on the survey form. A space has been provided for the surveyor’s comments. This area can be used to justify the decisions made or to note the required corrective actions necessary to allow the option not to install a backflow prevention device.

Record Maintenance

The supplier of water should maintain records all surveys for a sufficient length of time to document the history of each auxiliary water system. A minimum of five years is recommended by Ohio EPA.

Annual Survey for Auxiliary Water Systems

(Name of public water system) _____ hereby certifies that on (date) _____ the factors listed below have been evaluated during an on-site survey at (address) _____ and have been taken into consideration in determining the need for the installation of a backflow prevention device. This evaluation encompasses the premises served by the (Name) _____ Public Water System and an auxiliary water system on the real property that is owned or under control of the consumer adjacent to the premises.

1. Check all of the potential contaminant source that are present and complete the following table¹:

Potential Contaminant Source	Present (Y/N) on		Connected to PWS or Auxiliary System (AS)	Comments (Include description of backflow prevention device or method.)
	Adjacent Property	Premises		
Boiler/hot water building heat with chemical treatment			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Swimming pool			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Feed lot/livestock holding area/barnyard			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Irrigation system			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Herbicide/pesticide mixing			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Is there a business on the property that utilizes water for anything other than potable purposes? If so, what?			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Other potential backflow hazard(s).			PWS <input type="checkbox"/> AS <input type="checkbox"/>	
Explain:				

¹If any potential contaminant source is connected to the PWS without an acceptable isolation device or contained on the premises then an appropriate backflow prevention device maybe required by OAC 3745-95-02. By definition , if there is a connection to the public water system then the potential contaminant source is on the premises

2. List all auxiliary water systems. Include a drawing of the auxiliary water systems and show the distance auxiliary water systems are from all structures, property lines and locations of any items listed above.

3. What is the minimum distance between the public water system piping and the auxiliary water system?

4. Yes No Is there any reason to believe the physical separation has been tampered with or compromised in any way? If yes, describe:

5. Yes No Have unprotected cross-connections ever occurred? If yes, describe. Include dates of occurrence.
6. Yes No Is there a temporary or permanent means available on the premises for the purpose of cross-connecting the auxiliary water system with the public water system? If yes, describe:
7. Yes No Is plumbing from an auxiliary water system inside any buildings, structures, dwellings, or areas which are served by the public water system? If yes, describe:

Survey Results:

- The following approved method or device is required on each service connection:
- An air gap;
 - A reduced pressure principle backflow prevention (RP) device; or
 - A double check valve assembly (DCVA);

OR

- A backflow prevention device on each service connection is not required.

Surveyor Comments:

Surveyor(print): _____
 Date: _____

Surveyor Signature: _____

This survey should be maintained by the supplier of water for at least 5 years.

Cross-Connection Education Program Requirements and Recommended Learning Objectives

Educational Program Requirements:

The requirement to develop and implement a cross-connection education program is only required if a public water system decides to offer the alternative to the installation of an approved backflow prevention device under Ohio Administrative Code (OAC) 3745-95-04. If the alternative is offered then OAC 3745-95-04(C)(2)(e) requires that a cross-connection education program be developed and implemented to inform all consumers about the dangers of cross-connections and how to eliminate cross-connections.

Recommended learning objectives have been developed to assist in the development of a more comprehensive cross-connection educational program. In addition, OEPA-DDAGW has developed an educational brochure that can be used by a public water system that addresses the recommended learning objectives.

Even if a public water system does not intend to offer the alternative to the installation of a backflow prevention device for auxiliary water systems, it is recommended that an outreach effort be made to educate the consumers about dangers of cross-connections. Education is considered an integral part of any backflow prevention program.

The method of implementation of a cross-connection education program is not specified by rule but may include: mail, posting on Internet, public meetings, hand delivery, publication in newspaper(s), inclusion in the Consumer Confidence Report or public service announcements. Educational materials may include brochures, fact sheets, posters, audio and video recordings, and presentations. It is intended that the educational program be implemented in such a manner as to reasonably reach all consumers particularly those that have or potentially have an auxiliary water system available to their property.

Recommended learning objectives:

1. To provide a basic understanding of backflow, the associated dangers and the importance of prevention.
2. To provide the consumer an elementary understanding of common conditions that could result in a backflow hazard and what constitutes a cross-connection.
3. To provide a consumer with sufficient information to make an informed decision as it applies to cross-connections when considering plumbing modifications.
4. To inform the consumer of their rights and the rules, regulations, and policies that govern backflow prevention, including the penalties associated with creating a cross-connection.

Recommended Agreement Language¹

OAC 3745-95-04(C)(2)(b)

Alternative to Installation of an Approved Backflow Prevention Device on Auxiliary Water Systems

General Requirements for Consumer Agreement:

Any agreement intended to achieve compliance with OAC 3745-95-04(C)(2)(b) must contain language which specifies the penalties, including those set forth in rule 3745-95-08 of the Administrative Code, for creating a connection between the public water system and the auxiliary water system. Definitions of terms such as premises, real property, consumer's water system, auxiliary water system, cross-connection, etc. should be clearly defined.

Suggested Language to Include in Consumer Agreement:

No person shall install or maintain a water service connection to any premises where actual or potential cross-connections to a public water system or a consumer's water system may exist unless such actual or potential cross-connections are abated or controlled to the satisfaction of *{the supplier of water}*.

- (A) No person shall install or maintain a connection between a public water system or consumer's water system and an auxiliary water system.
- (B) Those consumer's that have an auxiliary water system as defined in Ohio Administrative Code 3745-95-01 shall install an approved backflow prevention device on the service line to each premises on the consumers real property except:
 - 1) Where *{the supplier of water}* determines, on a case-by-case basis, that the installation of an approved backflow prevention device on a service connection is not required in consideration of factors including, but not limited to, the past history of cross-connections being established or re-established on the premises, the ease or difficulty of connecting the auxiliary water system with the public water system on the premises, the presence or absence of contaminants on the property or other risk factors; **and**
 - 2) The consumer signs an agreement not to create a connection between the public water system and the auxiliary water system and all associated penalties including but not limited to discontinuance of service for failure to comply with the conditions of the agreement; **and**
 - 3) Permits *{the supplier of water}* or an appointed representative the right to enter upon reasonable notification the consumer's property and premises for the purpose of conducting an inspection at least every twelve months to certify that no connection or means of connection has been created between the public water system and the auxiliary water system.
- (C) Water service will be denied or discontinued, after reasonable notice to the occupant thereof, the water service to any premises wherein any backflow prevention device required is not installed, tested and maintained in a manner acceptable to the *{the supplier of water}*, or if it is found that the backflow prevention device has been removed or by-passed, or if an unprotected cross-connection exists on the premises, or if *{the supplier of water}* personnel, or authorized representative, is denied entry to determine compliance with backflow requirements.
- (D) Water service to such premises shall not be restored until the consumer has corrected or eliminated such conditions or defects in conformance with all applicable rules and regulations, and to the satisfaction of *{the supplier of water}*.
- (E) *Additional provisions established by the supplier of water.*

¹Language equivalent to paragraphs A, C & D are required and paragraph B is recommended. The recommended language may need to be modified or supplemented depending on the public water system ordinances, policies, rules, regulations or user agreements. Any agreement or language developed for the intended use for compliance with OAC 3745-95-04(C) should be reviewed and approved by the public water system's legal council.

What is a cross-connection?

Any physical connection between a possible source of contamination and any drinking water system piping.

What is backflow?

The flow through a cross-connection from a possible source of contamination back into the drinking water system.

Why should you be concerned?

- **ALL** cross-connections pose a potential health risk. **Chemical burns, fires, explosions, poisonings, illness and death have all been caused by backflow through cross-connections.**
- Backflow can be a health hazard for your family or other consumers if contaminated water enters your water supply plumbing system and is used for drinking, cooking or bathing.
- Backflow occurs more often than you think.
- Cross-connections with water supply plumbing or public drinking water piping systems are prohibited by law.
- Protecting the public water system from backflow contamination is the law.
- You are responsible for protecting your water supply plumbing from backflow that may contaminate your drinking water and the drinking water of others. This includes complying with the plumbing code and not creating cross-connections.

Why does backflow occur?

Backflow occurs when a cross-connection is created and a pressure reversal, either as backsiphonage or backpressure, occurs in the water supply piping.

What causes backsiphonage?

Backsiphonage occurs when there is a loss of pressure in a piping system. This can occur if the water supply pressure is lost or falls to below the source of contamination. This condition allows liquids to be siphoned back into the distribution system, just like drinking from a glass with a drinking straw.

What causes backpressure?

Backpressure occurs when an opposing pressure is applied against the public water system's supply pressure and the higher pressure overcomes the public water system's pressure. This condition allows undesirable gases or liquids from another system to enter into the drinking water supply. Any pumping system (such as a well pump) or pressurized system (such as steam or hot water boilers) can exert backpressure when cross-connected with the public water system.

What are some common backflow hazards that threaten the homeowner and other consumers?

- Hose connections to chemical solution aspirators to feed lawn and shrub herbicides, pesticides or fertilizers.
- Lawn irrigation systems.
- Chemically treated heating systems.
- Hose connections to a water outlet or laundry tub.
- Swimming pools, hot tubs, spas.
- Private and/or non-potable water supplies located on the property.
- Water-operated sump drain devices.
- Feed lots/livestock holding areas or barnyards fed through pipes or hoses from your water supply plumbing.

What are examples of cross-connection and backflow scenarios?

- Soapy water or other cleaning compounds backsiphoned into your water supply plumbing through a faucet or hose submerged in a bucket or laundry basin.
- A hose submerged in a swimming pool creates a pathway for pool water to enter your water supply plumbing.
- Fertilizer/pesticides backsiphoned into your water supply plumbing through a garden hose attached to a fertilizer/pesticide sprayer.
- Chemicals/pesticides and animal feces drawn into your water supply plumbing from a lawn irrigation system with submerged nozzles.
- Bacteria/chemicals/additives present in a boiler system backsiphon into the water supply plumbing.
- A connection made between a private well supply and the water being supplied by a public water system through the water supply plumbing.

What can you do to prevent backflow situations in your home or business?

- Be aware of and eliminate cross-connections.
- Maintain air gaps. Do not submerge hoses or place them where they could become submerged.
- Use hose bib vacuum breakers on fixtures (hose connections in the basement, laundry room and outside).
- Install approved, testable backflow prevention devices on lawn irrigation systems.
- Do not create a connection between an auxiliary water system (well, cistern, body of water) and the water supply plumbing.

What must be done to protect the public water system?

The water supplier is required to determine potential and actual hazards. If a hazard exists at a customer's service connection to the public water system, the customer will be required to install and maintain an appropriate backflow prevention device* at the meter and/or at the source of the hazard.

*Check with your water supplier on the appropriate backflow prevention device required before purchase or installation of the device.

Who is responsible?

In Ohio, the responsibility for preventing backflow is divided. In general, state and local plumbing inspectors have authority over plumbing systems within buildings while Ohio EPA and water suppliers regulate protection of the distribution system at each service connection.

Water customers have the ultimate responsibility for properly maintaining their plumbing systems. It is the homeowner's or other customer's responsibility to ensure that cross-connections are not created and that any required backflow prevention devices are tested yearly and are in operable condition.

What is the law?

Ohio Administrative Code Chapter 3745-95 requires the public water supplier to protect the public water system from cross-connections and prevent backflow situations. The public water supplier must conduct cross-connection control inspections of their water customers' property to evaluate cross-connection hazards. Local ordinances or water department



Backflow Prevention and Cross-Connection Control

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regulations may also exist and must be followed in addition to state regulations. If a customer is found to have a potential or actual cross-connection contamination hazard, the customer will be required to eliminate the hazard and/or install an appropriate backflow prevention device at the service connection and/or at the hazard.

Special Conditions

Auxiliary Water Systems

What is an auxiliary water system?

Any water system on or available to your property other than the public water system. Used water or water from wells, cisterns or open reservoirs that are equipped with pumps or other sources of pressure, including gravity, are examples.

What protection is required?

- The auxiliary water system must be completely separated from water supply plumbing served by a public water system; and
 - an approved backflow prevention device must be installed at the service connection (where the public water system connects to the customer's plumbing system).
- or**
- The auxiliary water system must be eliminated.

Are there exceptions?

The water supplier may waive the requirement for a backflow prevention device at the service connection, at the discretion of the water supplier, if:

- all components of the auxiliary water system, including pumps, pressure tanks and piping, are removed from the premises, which is defined as all buildings, dwellings, structures or areas with water supply plumbing connected to the public water system; and
- the possibility of connecting the auxiliary water system to the water supply plumbing is determined by the water supplier to be extremely low; and
- no other hazards exist; and
- the customer enters into a contract with the water supplier.

The contract will require the customer:

- to understand the potential hazard of a cross-connection;
- to never create a cross-connection between the auxiliary water system and the public water system;
- to allow an inspector to survey his/her property for hazards as long as the contract is in effect; and
- to face loss of service and other penalties if the contract is violated.

The water supplier must perform an annual inspection of the customer's contract-regulated property. It is at the water supplier's discretion to waive a backflow prevention device since the water supplier must, by law, do everything reasonably possible to protect the public water system from contamination.

Booster Pumps

What is the concern?

Booster pumps connected to plumbing systems or water mains can reduce the pressure in water mains causing backsiphonage conditions.

- Booster pumps are prohibited in one, two and three family dwellings unless they draw from a surge tank filled through an air gap.
- All other booster pumps must be equipped with a low suction cut-off switch that is tested and certified every year.

Contacts

Need more information?

Questions concerning backflow prevention and cross-connection control may be directed to your local water department at the number shown on the front of this brochure, to Ohio EPA's Division of Drinking and Ground Waters central office at (614) 644-2752, or to your local Ohio EPA district office at the following numbers:

- Northwest District (419) 373-3048
- Northeast District (330) 963-1200
- Southwest District (937) 285-6357
- Southeast District (740) 385-8501
- Central District (614) 728-3778

Questions regarding internal plumbing in the home may be directed to your local plumbing authority or to the Ohio Department of Commerce, Plumbing Administrator at (614) 644-3153.

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