Tuppers Plains-Chester Water District

# 2024 Water Quality

www.tpcwd.org | Consumer Confidence Report | July, 2025

## Facts and Figures

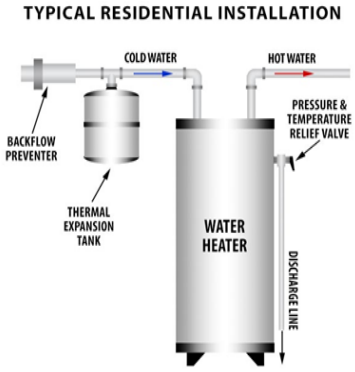
- Robert Marcinko, Oscar Pennington, & Cecil Caldwell were the Township Trustees. The original water board Trustees for the Water District were Lindsey L. Lyons, Jr., Carl J. Barnhill, Eldon Gaul, Delmar Baum, and Harold Blackston.
- We serve a population of about 16,000 people with 600 miles of water line installed to 5,700 homes.
- 21 water tanks with a total capacity of over 3.1 million gallons.
- Tuppers Plains-Chester Water District also has emergency interconnects with several adjacent systems including Leading Creek Conservancy District, the Village of Racine, the Village of Syracuse, and the City of Athens. In 2024 we used the interconnect with the Village of Racine for about 4 hours. On average, this connection is used for about 0 days per year. This report does not contain information on the Village of Racine's water quality, but a copy of their consumer confidence report can be obtained by calling 740-949-2296.
- Our treatment process removes C-8 as well as the other "forever chemicals", Iron, Manganese, and some hardness from the water and adds fluoride. Chlorine is used to disinfect the water so it is free of bacteria when it reaches the customer.
- Our type of treatment requires a Class I Treatment Operator. Our District has five Class I Ohio EPA Licensed operators.
- Our water mains are made from: Ductile Iron, Cement Asbestos, PVC and High Density Poly Ethylene (HDPE).
- The Source of your drinking water is from seven wells in Long Bottom. The Treatment Plant is located on Sand Hill Cemetery Road. Across SR 124 from the well field. Our water is drawn from the Ohio Valley Aquifer.

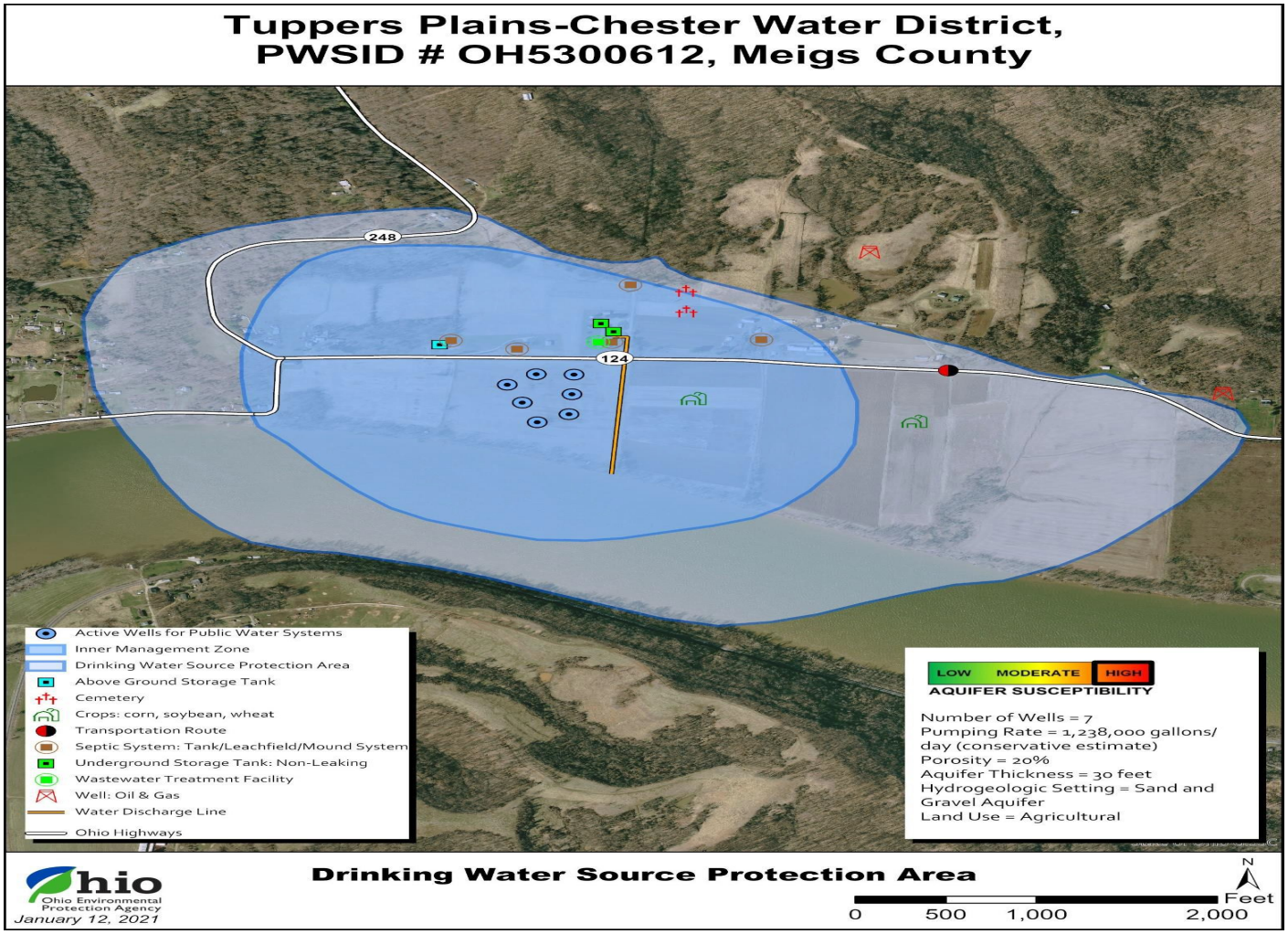
### Hot Water Heater Calcium Buildup

The water that leaves our treatment plant after the softening process has between 110 and 150 mg/L hardness from calcium. This places our water in the moderate range for hardness. Although we remove some hardness from the water, there is still calcium left in the water that can buildup in your plumbing. This occurs mainly in the hot water tank. If let go long enough, it can become an issue at fixtures and inside of your plumbing. Calcium will either be found as a sticky gel type material or as hard white to yellow chunks. A hot water heater that contains calcium will make noises similar to cavitation (rocks grinding/aggressive bubbling). It can even end up on the cold side of plumbing if the pressure on the cold inlet to the hot water heater becomes lower than the pressure on the hot water side. We recommend flushing your hot water heater every six to twelve months to remove the calcium and eliminate issues with its buildup. This calcium is not harmful it just can become a nuisance if let go for too long.

### Thermal Expansion is doing Harm to our Customers Homes

Thermal expansion tanks help to control pressure build-up in closed, hot water systems. The problem has become such an issue that the District has changed its policy on new services that during the inspection the water will not be turned on until this device is installed. This prevents the water heater pressure relief valve from opening, saving energy and eliminating a potential safety hazard. The expansion tank helps prevent dripping faucets and wasted energy; puddles of water at the base of the water heater from pressure relief valve discharge; water heater damage from frequent water pressure build-up; dishwasher and washing machine solenoid damage; toilet valve running intermittently and noisy water hammer. Thermal expansion can take normal water pressures of around 50 psi and turn it into damaging water pressures of greater than 150 psi. Every home in America is required to have this, but even many new homes in our area are not getting them installed, talk to your builder and plumber.






# What is Drinking Water Source Protection?

Drinking Water Source Protection is a plan of action for protecting the water you drink from contamination, at the source. To assist the Tuppers Plains-Chester Water District with our drinking water source protection efforts, Ohio EPA provided the district with a Drinking Water Source Assessment report. The Source Water Assessment Report determined that the TPCWD aquifer has a high susceptibility to contamination. This report included a map of the protection area (see above), based on calculations of how far water travels through the aquifer in five years. The report also includes information on land uses and facilities that may pose a contamination risk to the drinking water source. Potential risks are based on proximity to the drinking water source and the kinds/quantities of chemicals that are typically handled by these types of facilities.

The Tuppers Plains-Chester Water District has used the provided assessment to develop a drinking water source protection plan. If you would like to be more involved with the district's drinking water protection efforts or if you would like to see a copy of the district's drinking water source protection plan, please contact the Tuppers Plains-Chester Water's office at (740) 985-3315.

# Sources of Water Contamination

Drinking water, including bottled water, may be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water and bottled water) include rivers, streams, lakes, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and in some cases radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment, plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, can be naturally occurring or result from urban storm water runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming. Pesticides and herbicides, may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses. Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic tanks. Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, the EPA introduces regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection from public health.

We have a current, unconditional license to operate our water system.

# About your drinking water

The EPA requires routine sampling to ensure drinking water safety. The Tuppers Plains-Chester Water District conducted sampling for Bacteria, Chlorine, Hardness, Fluoride, Nitrates, Iron, Manganese, lead, copper, sodium, Total Haloacetic Acids (HAA5's), Total Trihalomethanes (TTHM's), Inorganics, and Volatile Organic Chemicals (VOC) in 2024. The Ohio E.P.A. requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants remain below the MCL for an EPA determined amount of time. Some of our data, though accurate, is more than one year old.

| Contaminants (Units) | MCLG | MCL | Level Found | Range of Detections | Violation | Sample Year | Typical Source of Contaminants |
|---|---|---|---|---|---|---|---|
| Radiological | | | | | | | |
| Gross Alpha particle activity | 15 pCi/l | 15 pCi/l | 0.19 pCi/l | N/A | NO | 2021 | Natural background sources, decay of radionuclides |
| Bacteriological | | | | | | | |
| Inorganic Contaminants | | | | | | | |
| Nitrate (ppm) | 10 mg/l (ppm) | 10 mg/l (ppm) | 1.32 mg/l (ppm) | N/A | NO | 2024 | Runoff from fertilizer use; erosion of natural deposits |
| Fluoride (ppm) | 4.0 mg/l (ppm) | 4.0 mg/l (ppm) | .92 mg/l (ppm) | .81-1.08 mg/l (ppm) | NO | 2024 | Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories |
| Barium (ppm) | 2.0 mg/l (ppm) | 2.0 mg/l (ppm) | .050 mg/l (ppm) | N/A | NO | 2024 | Mineral deposits, drilling waste |
| Volatile Organic Contaminants | | | | | | | |
| Residual Disinfectants | | | | | | | |
| Total Chlorine | 0 mg/l (ppm) | 4 mg/l (ppm) | 1.15 mg/l (ppm) | 0.96-1.6 mg/l (ppm) | NO | 2024 | Disinfection |
| HAA5 Haloacetic Acids (ppb) | None | 60 ug/l (ppb) | 7.0 ug/l (ppb) | 5.8-7.0 ug/l (ppb) | NO | 2024 | By-products of drinking water chlorination |
| TTHM'S Total Trihalomethanes (ppb) | None | 80 ug/l (ppb) | 25.2 ug/l (ppb) | 16.8-25.2 ug/l (ppb) | NO | 2024 | By-products of drinking water chlorination |

Lead and Copper

| Contaminants (units) | Action Level | Individual Results over the AL | 90% of test levels were less than | | Violation | Year Sampled | Typical Source of Contaminants |
|---|---|---|---|---|---|---|---|
| Lead (ppb) | 15 ppb | 0 | 2.0 ppb | | NO | 2024 | Corrosion of household plumbing systems; Erosion of natural deposits |
| 0 out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb. | | | | | | | |
| Copper (ppm) | 1300 ppb | 0 | 159 ppb | | NO | 2024 | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |
| 0 out of 30 samples were found to have copper levels in excess of the copper action level of 1300 ppb. | | | | | | | |

## Definitions of Terms

1. **Maximum Contaminant Level Goal (MCLG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
2. **Maximum Contaminant level (MCL):** The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
3. **Parts per Million (ppm) or Milligrams per Liter (mg/L)** are units of measure for concentration of a contaminant. A part per million corresponds to one second in a little over 11.5 days.
4. **Parts per Billion (ppb) or Micrograms per Liter (µg/L)** are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
5. **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
6. **The '<' symbol:** This symbol means less than. A result of <5 means that is the lowest level that could be detected. was 5 and the contaminant in that sample was not detected.
7. **Picocuries per liter (pCi/L):** A common measure of radioactivity.

## Lead Service Line Inventory

Our distribution system has no lead, galvanized requiring replacement, or lead status unknown service lines. To determine this, we used the following sources: construction and plumbing codes, historic records, visual inspections, and customer surveys. The Tuppers Plains-Chester Water District service line inventory is available by contacting our main office at 740-985-3315.

## Reporting Violations

During the months of January, June, and August of 2024 Tuppers Plains-Chester Water District failed to properly report the minimum operator staffing information for the distribution system. Although it is a violation, the District personnel were still on site and monitoring the distribution system each day, it was simply not reported correctly.

## Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infection. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the **Safe Drinking Water Hotline (1-800-426-4791)**

## *Public Participation*

Public participation and comments are encouraged at regular meetings of the Board of Directors, which meet the second Monday of each month at 7:30 p.m. at the District's main office. We are located on SR 7 three miles south of the caution light in Tuppers Plains.

***For more information***

**If you have any questions regarding this report, or any other matter regarding our drinking water, you may contact Derek Baum, General Manager at 1-740-985-3315**

***PWS #5300612***

**CALL BEFORE YOU DIG.**

**Remember to call your local underground locating service at least 48 hours in advance. The call is free! Ohio OUPS: (800)-362-2764 Also available online at oups.org.**

OHIO811 Before You Dig

### Electronic Bill Pay (aka ACH)

For several years we have offered ACH to our customers. An application must be completed and returned to our office. The application is available from the office or from our website under forms & reports. This service is free if completed through the office. If you sign up online through Ampstun there is a fee of $2.35 per transaction, the same as an e-check below.

### Leak Insurance

Another service the District offers is Leak Insurance. This covers excess water usage due to leaks from the meter to and including in your home. The cost is $25.00 for coverage up to $500.00 and $50.00 for coverage up to $1000.00 in one or several leaks. This coverage begins each year on July 1st and covers you to the end of June the following year. The form for leak insurance is available in the office or on the website under forms & reports.

### Online Bill Pay

is also available on our website at **www.tpcwd.org or pay by phone: 888-521-1751**

Credit Card: $2.95 Fee per transaction up to $400.00

Above $400.00 the transaction fee is 2.75%

E-check: $2.35 per transaction

### Lead Educational Information

"If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children lead in drinking water is primarily from materials and components associated with service lines and home plumbing. TPCWD is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. If desired the testing costs about $50. The District is required to sample 30 homes each year. The 2021 sampling did not indicate any copper or lead issues. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline at 800-426-4791 or at **"http://www.epa.gov/safewater/lead."**

### Backflow Prevention

Our efforts to prevent backflow of water from each metered water service is still on going. Each new customer is required to have an inspection of their plumbing from our personnel before the water will be turned on. We have to see a backflow prevention device (aka double check valve) installed at each home and a clear separation of another water supply (well or spring) if it exists on the property. The process of checking existing commercial customers, notifying them of what will be required, and performing inspections is ongoing. All commercial operations are required to install a backflow prevention device and are required to have yearly inspections of their equipment by a qualified person. The Water District will perform the first on site inspection to advise the customer what type of device is needed, but the landowner will be required to purchase, install, and maintain the device as per Ohio Law. The backflow prevention program is important to help protect the water system users from hazards and is mandated by the EPA. The district appreciates the understanding and assistance in completing the implementation of the program.

If a potential or actual cross-connection contamination hazard is identified, the customer will be required to eliminate the hazard and/or install an appropriate backflow preventer at the service connection and/or at the hazard.

## *Special Conditions*

### Auxiliary Water Systems

**What is an auxiliary water system?**

It is 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 preventer 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?**

At their discretion, the water supplier may waive the requirement for a backflow preventer at the service connection if all the following conditions are met:

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

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 their property for hazards as long as the contract is in effect.
- 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 to verify the conditions have not changed, which would warrant installation of a backflow preventer. The water supplier must, by law, do everything reasonably possible to protect the water system from contamination.

### Booster Pumps

**What is the concern?**

Booster pumps connected to plumbing systems or water mains can cause backsiphonage by reducing the water mains. The following requirements are in place to help prevent backsiphonage:

- Booster pumps, not used for fire suppression, must be equipped with a low suction cut-off switch that is tested and certified every year;
- Alternately, when a booster pump is necessary for one-, two- and three-family dwellings, it is preferred that the booster pump draw from a surge tank filled through an air gap; and
- Booster pumps, used in a fire suppression system, must be equipped with either a low suction throttling valve on the discharge side or be equipped with a variable speed suction limiting control system. Low-pressure cut-off devices will suffice for fire pumps installed prior to August 8, 2008, until a significant modification is warranted, at which point the minimum pressure sustaining method must be updated. Each of these methods must be tested and certified each year.

### Contacts

**Need more information?**

Questions concerning backflow prevention and cross-connection control may be directed to your local water department or to your local Ohio EPA District Office at the following numbers:

| | |
|---|---|
| **Northwest District** | **(419) 352-8461** |
| **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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Mike DeWine, Governor
Laurie A. Stevenson, Director

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Ohio Environmental Protection Agency

# Backflow Prevention and Cross-Connection Control

## Protecting our Public Water System

August 2015

Division of Drinking and Ground Waters
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2752
www.epa.ohio.gov

## What is a cross-connection?

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

## What is backflow?

It is the flow through a cross-connection from a possible source of contamination back into the drinking water system. It occurs when a cross-connection is created and a pressure reversal, either as backsiphonage or backpressure, occurs in the water supply piping.

## Why be concerned?

- ALL cross-connections pose a potential health risk.
- 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. Chemical burns, fires, explosions, poisonings, illness and death have all been caused by backflow through cross-connections.
- Backflow occurs more often than you think.
- You are legally responsible for protecting your water supply plumbing from backflow that may contaminate drinking water, either your own or someone else's. This includes complying with the plumbing code and not creating cross-connections.

## What causes backsiphonage?

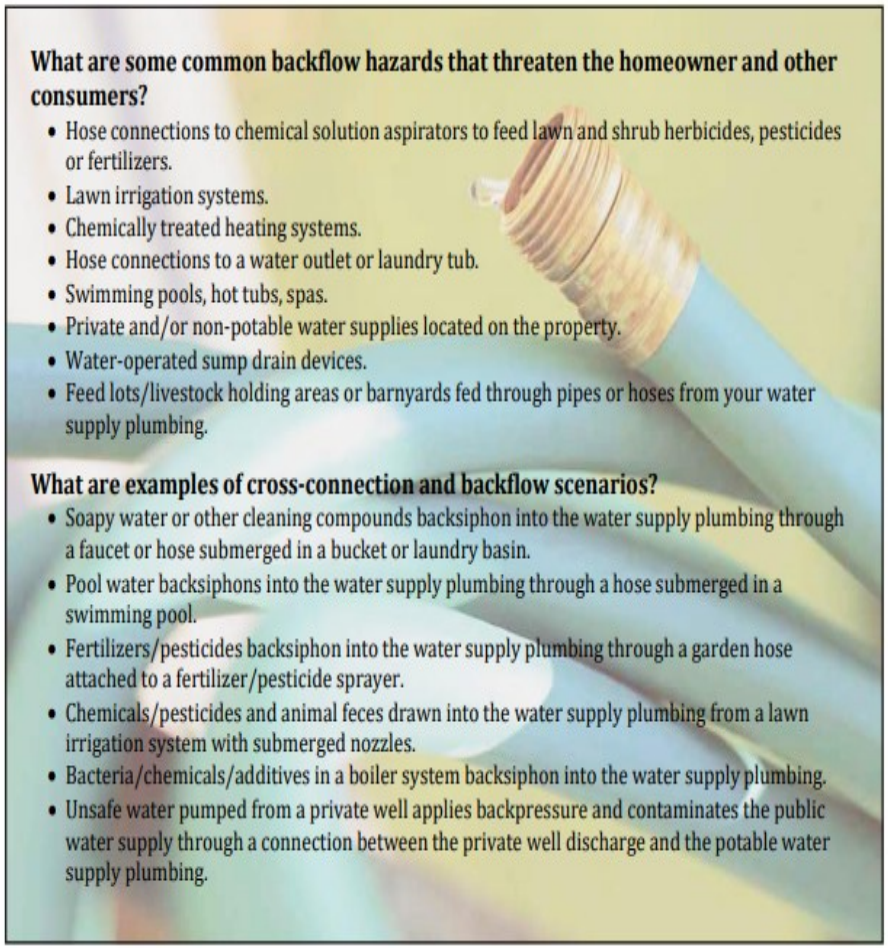
Backsiphonage occurs when there is a loss of pressure in a piping system. This can occur if the water supply pressure is lost or falls to a level lower than the source of contamination. This condition, which is similar to drinking from a glass with a straw, allows liquids to be siphoned back into the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

## What causes backpressure?

Backpressure occurs when a higher opposing pressure is applied against the public water system's pressure. This condition allows undesirable gases or liquids from another system to enter 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 can I do?

- 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 preventers 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 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 backsiphon into the water supply plumbing through a faucet or hose submerged in a bucket or laundry basin.
- Pool water backsiphons into the water supply plumbing through a hose submerged in a swimming pool.
- Fertilizers/pesticides backsiphon into the water supply plumbing through a garden hose attached to a fertilizer/pesticide sprayer.
- Chemicals/pesticides and animal feces drawn into the water supply plumbing from a lawn irrigation system with submerged nozzles.
- Bacteria/chemicals/additives in a boiler system backsiphon into the water supply plumbing.
- Unsafe water pumped from a private well applies backpressure and contaminates the public water supply through a connection between the private well discharge and the potable water supply plumbing.

## What must be done to protect the public water system?

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

*Check with your water supplier to verify which backflow preventer is required before purchase or installation.

## 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 preventers 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 hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations.