

# *ADAMS FIRE DISTRICT*

## *ADAMS, MASSACHUSETTS*

# 2023

## *ANNUAL DRINKING WATER QUALITY REPORT*



*MassDEP PWSID # 1004000*

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This report is a snapshot of drinking water quality that we provided last year. Included are details about where your water comes from, what it contains, and how it compares to state and federal standards. We are committed to providing you with information because informed customers are our best allies.

## 1. PUBLIC WATER SYSTEM INFORMATION

**Contact Person:** John Barrett, Adams Fire District Superintendent

**Telephone:** 743:0978 Ext 13

### Water System Improvements

Our water system is routinely inspected by the Massachusetts Department of Environmental Protection (MassDEP). MassDEP inspects our system for its technical, financial, and managerial capacity to provide safe drinking water to you. To ensure that we provide the highest quality of water available, the water system is operated by Massachusetts certified Drinking Water Operators who oversee the routine operation of the system. As part of our commitment to our valued customers, we continued all our previous programs. We repaired four (4) water main breaks and assisted with multiple service leaks/replacements. We replaced 9 hydrants with seven (7) requiring replumbing to install isolation gates. One (1) new hydrant was installed on the end of Potter Street to assist with better water quality, and 8 hydrants repaired. A strategically planned removal of our 500,000 gallon tank from service to clean, install new anode rods, and complete internal repairs from ice damage that have continually plagued the tank since installation in 2009 also took place this year.

### Opportunities for Public Participation

If you would like to participate in discussions regarding your water quality, you may attend the following meetings or educational events. The Prudential Committee meets monthly. Meetings are posted 48 hours in advance at the District Office and Town Hall. Please call the District Office for more information at (413) 743-0179.

## 2. YOUR DRINKING WATER SOURCE

### Where Does My Drinking Water Come From?

Your drinking water comes from three wells sunk about 80-100 feet into an underground source of water located in the Upper Hoosac River Valley in the Town of Cheshire. These wells are known as Cheshire Harbor Wells #2A, 3, and 4. These locations also serve as District's Treatment Facilities. The District owns the land around them and restricts any activity that could contaminate them. The three wells are gravel-packed wells with a combined capacity of 3600 GPM. Your water is provided by the following sources listed below:

| Source Name | MassDEP Source ID# | Source Type | Location of Source                |
|-------------|--------------------|-------------|-----------------------------------|
| Well 2A     | 1004000-02G        | Groundwater | 264 East View Drive, Cheshire, MA |
| Well 3      | 1004000-03G        | Groundwater | 264 East View Drive, Cheshire, MA |
| Well 4      | 1004000-04G        | Groundwater | 264 East View Drive, Cheshire, MA |

### Is My Water Treated?

Our water system makes every effort to provide you with safe and pure drinking water. To improve the quality of the water delivered to you, we treat it to remove contaminants.

- Chlorine (sodium hypochlorite), a disinfectant, is added to protect against microbial contaminants.
- The water is treated with CalciQuest® to reduce corrosion.

The water quality of our system is constantly monitored by our staff and MassDEP through multiple daily, monthly and quarterly reporting to determine the effectiveness of the existing water treatment and to determine if any additional treatment is required.

### How Are These Sources Protected?

The Adams Fire District continues to remind our water users of the importance of protecting our water source. Protecting our drinking water source is essential for maintaining and improving the quality of human health and the environment. MassDEP has prepared a Source Water Assessment Program (SWAP) Report for the water supply source(s) serving this water system. The SWAP Report assesses the susceptibility of public water supplies to contamination by summarizing information about the activities and land uses within the recharge area.

### What is My System's Ranking?

Our drinking water source, the Cheshire Harbor Wellfield, was given a susceptibility ranking of moderate to high using the information collected during MassDEP assessment. A "moderate to high" susceptibility ranking is a measure of a water supply's potential to become contaminated due to land uses and activities within its recharge area.

### Where Can I See the SWAP Report?

The complete SWAP report is available at the Adams Board of Health at 8 Park Street and online at <https://www.mass.gov/doc/adams-fire-district-swap-report/download>

For more information, call Water Superintendent John C. Barrett at (413) 743-0978, ext. 13.

### What Are the Key Issues for Our Water Supply?

The SWAP Report notes the key issues of following best management practices related to spill prevention and implementing a wellhead protection plan for the water supply protection area of Wells #2A, 3, and 4.

### What Can Be Done To Improve Protection?

The SWAP report recommends:

- That the Adams Fire District follows Best Management Practices (BMP's) focusing on spill prevention, and operational practices to reduce the use and release of hazardous materials.
- That the Adams Fire District and the Town of Cheshire work together to implement a Wellhead Protection Plan and establish wellhead protection controls for the Cheshire Harbor Wellfield.

Residents can help protect sources by:

- Practicing good septic system maintenance,
- Supporting water supply protection initiatives at District meetings,
- Taking hazardous household chemicals to hazardous materials collection days,
- Volunteering for education outreach programs at schools,
- Limiting pesticide and fertilizer use, etc.

## 3. SUBSTANCES FOUND IN TAP WATER

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, 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.

Contaminants that may be present in source water include:

**Microbial contaminants** – such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants** – such as salts and metals, which can be naturally occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, and farming.

**Pesticides and herbicides** – which may come from a variety of sources such as agriculture, urban stormwater 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 stormwater runoff, and septic systems.

**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 Department of Environmental Protection (MassDEP) and U.S. Environmental Protection Agency (EPA) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) and Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

All drinking water, including bottled water, may reasonably 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 EPA's Safe Drinking Water Hotline (800-426-4791).

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised 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 some infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on lowering the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

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. The Adams Fire District 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 for 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

#### **4. IMPORTANT DEFINITIONS**

**90th Percentile** – Out of every 10 homes sampled, 9 were at or below this level.

**Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

**Level 1 Assessment** – A Level 1 assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system.

**Level 2 Assessment** – A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

**Massachusetts Office of Research and Standards Guideline (ORSG)** – This is the concentration of a chemical in drinking water, at or below which, adverse health effects are unlikely to occur after chronic (lifetime) exposure. If exceeded, it serves as an indicator of the potential need for further action.

**Maximum Contaminant Level (MCL)** – The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**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.

**Maximum Residual Disinfectant Level (MRDL)** – The highest level of a disinfectant (chlorine, chloramines, chlorine dioxide) allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Maximum Residual Disinfectant Level Goal (MRDLG)** – The level of a drinking water disinfectant (chlorine, chloramines, chlorine dioxide) below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**Running Annual Average (RAA)** – The average of four consecutive quarters of data.

**Non-Detect (ND)** – The laboratory did not detect the contaminant in the sample.

**Secondary Maximum Contaminant Level (SMCL)** – These standards are developed to protect the aesthetic qualities of drinking water and are not health based.

**Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.

**Abbreviations**

|  |   |
|--|---|
| ppm = parts per million, or milligrams per liter (mg/l)<br>or 1 gallon per million gallons | NTU = Nephelometric Turbidity Units   |
| ppb = parts per billion, or micrograms per liter (ug/l)<br>or 1 gallon per billion gallons | ND = Not Detected   |
| ppt = parts per trillion, or nanograms per liter<br>or 1 gallon per trillion gallons       | N/A = Not Applicable  |
| pCi/L = picocuries per liter (a measure of radioactivity)                                  | mrem/year = milliremms per year (a measure of radiation absorbed by the body) |

**5. WATER QUALITY TESTING RESULTS**

**What Does This Data Represent?**

The water quality information presented in the table(s) is from the most recent round of testing done in accordance with the regulations. All data shown has been collected during the last calendar year unless otherwise noted in the table(s).

MassDEP has reduced the District monitoring requirements for barium and fluoride, which are (IOC's) inorganic contaminants and PFAS-6 because the source is not at risk of contamination. The last sample collected for these contaminants was taken in 2020 for IOC's, and PFAS-6 in 2022. All samples were found to meet all applicable US EPA and MassDEP standards. PFAS-6 testing is listed on Page 7 and our next scheduled testing is in 2024.

The **90th percentile** is a statistical measure used to evaluate the concentration of **lead** and **copper** in water samples and represents the concentration in a water sample that is exceeded by only **10%** of the samples collected within residential dwellings. Please read additional information in section 6.

|              | Date(s) Collected                  | 90 <sup>TH</sup> percentile | Action Level | MCLG | # of sites sampled | # of sites above Action Level | Possible Source of Contamination   |
|--------------|------------------------------------|-----------------------------|--------------|------|--------------------|-------------------------------|--|
| Lead (ppb)   | 8/3 - 8/4 -<br>8/7 - 8/8 -<br>8/10 | 0.0019                      | 15           | 0    | 20                 | 0                             | Corrosion of household plumbing systems; Erosion of natural deposits                                   |
| Copper (ppm) | 8/3 - 8/4 -<br>8/7 - 8/8 -<br>8/10 | 0.191                       | 1.3          | 1.3  | 20                 | 0                             | Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives |

**Total Coliform:** Coliforms are bacteria that are naturally present in the environment and are used as an **indicator** that other potentially harmful bacteria may be present. We found coliforms indicating the need to look for potential problems in water treatment or distribution. Resampling was completed to confirm validity of initial sample. Remediation/Emergency Response actions had been initiated in the event of confirmation. All resamples came back negative and emergency response logged and filed with MassDEP in excess of requirements.

| Bacteria                | MCL / TT | MCLG | Value    | Date     | Violation (Y/N) | Possible Sources             |
|-------------------------|----------|------|----------|----------|-----------------|------------------------------|
| Total Coliform Bacteria | 1        | 0    | Positive | 10-16-23 | No*             | Human and animal fecal waste |

\*We had one total coliform sample that was positive. All repeat samples came back with No Detect (ND). Therefore, it is not a violation of the Revised Total Coliform Rule (RTCR).

**Disinfection By-products (TTHM & HAA5)** – Chemicals that form when chlorine used for disinfecting water to prevent disease, react with organic or inorganic matter in water.

**Free Chlorine/Chlorine Residual-** The amount of Chlorine measured in parts per million, that is available to eliminate harmful microbes within our distribution system. We record this data at 13 approved representative points throughout our distribution system monthly.

| Regulated Contaminant                             | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination      |
|---|-------------------|--|----------------|-------------|---------------|-----------------|--|
| <b>Disinfectants and Disinfection By-Products</b> |                   |  |                |             |               |                 |  |
| Total Trihalomethanes (TTHMs) (ppb)               | 08-07-23          | 1.2  | ND – 1.2       | 80          | N/A           | N               | Byproduct of drinking water chlorination |
| Haloacetic Acids (HAA5) (ppb)                     | 08-07-23          | ND   | ND             | 60          | N/A           | N               | Byproduct of drinking water disinfection |
| Free Chlorine (ppm)                               | Monthly           | 0.25   | 0.16 - 0.25    | 4           | 4             | N               | Water additive used to control microbes  |

| Regulated Contaminant         | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination   |
|-------------------------------|-------------------|--|----------------|-------------|---------------|-----------------|---|
| <b>Inorganic Contaminants</b> |                   |  |                |             |               |                 |   |
| Nitrate (ppm)                 | 04/03/23          | 0.523  | 0.523          | 10          | 10            | N               | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Nitrite (ppm)                 | 04/03/23          | ND   | -              | 1           | 1             | N               | Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits |
| Perchlorate (ppb)             | 07/25/23          | ND   | -              | 2           | N/A           | N               | Rocket propellants, fireworks, munitions, flares, blasting agents                           |

| Regulated Contaminant | Date(s) Collected    | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination   |
|-----------------------|----------------------|--|----------------|-------------|---------------|-----------------|---|
| PFAS6 (ppt)           | 01-07-22<br>04-04-22 | ND   | -              | 20          | N/A           |                 | Discharges and emissions from industrial and manufacturing sources associated with the production or use of these PFAS, including production of moisture and oil resistant coatings on fabrics and other materials. Additional sources include the use and disposal of products containing these PFAS, such as fire-fighting foams. |

| Regulated Contaminant            | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination                                     |
|----------------------------------|-------------------|--|----------------|-------------|---------------|-----------------|---|
| Volatile Organic Contaminants    |                   |  |                |             |               |                 |   |
| Benzene (ppb)                    | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from factories; leaching from gas storage tanks and landfills |
| Carbon tetrachloride (ppb)       | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from chemical plants and other industrial activities          |
| Chlorobenzene (ppb)              | 07-05-23          | ND   | -              | 100         | 100           | No              | Discharge from and agricultural chemical factories                      |
| o-Dichlorobenzene (ppb)          | 07-05-23          | ND   | -              | 600         | 600           | No              | Discharge from industrial chemical factories                            |
| p-Dichlorobenzene (ppb)          | 07-05-23          | ND   | -              | 5           | 5             | No              | Discharge from industrial chemical factories                            |
| 1,2-Dichloroethane (ppb)         | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from industrial chemical factories                            |
| 1,1-Dichloroethylene (ppb)       | 07-05-23          | ND   | -              | 7           | 7             | No              | Discharge from industrial chemical factories                            |
| cis-1,2-Dichloroethylene (ppb)   | 07-05-23          | ND   | -              | 70          | 70            | No              | Breakdown product of trichloroethylene and tetrachloroethylene          |
| trans-1,2-Dichloroethylene (ppb) | 07-05-23          | ND   | -              | 100         | 100           | No              | Discharge from industrial chemical factories                            |
| Dichloromethane (ppb)            | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from pharmaceutical and chemical factories                    |

| Regulated Contaminant           | Date(s) Collected | Highest Result or Highest Running Average Detected | Range Detected | MCL or MRDL | MCLG or MRDLG | Violation (Y/N) | Possible Source(s) of Contamination   |
|---------------------------------|-------------------|--|----------------|-------------|---------------|-----------------|---|
| 1,2-Dichloropropane (ppb)       | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from industrial chemical factories  |
| Ethylbenzene (ppb)              | 07-05-23          | ND   | -              | 700         | 700           | No              | Leaks and spills from gasoline and petroleum storage tanks  |
| Styrene (ppb)                   | 07-05-23          | ND   | -              | 100         | 100           | No              | Discharge from rubber and plastic factories; leaching from landfills  |
| Tetrachloroethylene (PCE) (ppb) | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from factories and dry cleaners; residual of vinyl-lined water mains  |
| 1,2,4-Trichlorobenzene (ppb)    | 07-05-23          | ND   | -              | 70          | 70            | No              | Discharge from textile-finishing factories  |
| 1,1,1-Trichloroethane (ppb)     | 07-05-23          | ND   | -              | 200         | 200           | No              | Discharge from use in septic system cleaners  |
| 1,1,2-Trichloroethane (ppb)     | 07-05-23          | ND   | -              | 5           | 3             | No              | Discharge from industrial chemical factories  |
| Trichloroethylene (TCE) (ppb)   | 07-05-23          | ND   | -              | 5           | 0             | No              | Discharge from metal degreasing sites and other factories   |
| Toluene (ppb)                   | 07-05-23          | ND   | -              | 1           | 1             | No              | Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories                                    |
| Vinyl Chloride (ppb)            | 07-05-23          | ND   | -              | 2           | 0             | No              | Leaching from PVC piping; discharge from plastics factories   |
| Xylenes (ppb)                   | 07-05-23          | ND   | -              | 10          | 10            | No              | Leaks and spills from gasoline and petroleum storage tanks; discharge from petroleum factories; discharge from chemical factories |



**Unregulated Contaminants-** Contaminates for which there are no established drinking water standards. The purpose of unregulated contaminant monitoring is to assist regulatory agencies in determining their occurrence in drinking water and whether future regulation is warranted (SMCL definition listed on page 4).

| Unregulated Contaminants | Date(s) Collected | Result or Range Detected | Average Detected | SMCL | ORSG | Possible Source  |
|--------------------------|-------------------|--------------------------|------------------|------|------|--|
| Sodium (ppm)             | 4-3-23            | 16.1                     | -                | N/A  | 20   | Discharge from the use and improper storage of sodium-containing de-icing compounds or in water-softening agents |

**Secondary Contaminates-** Contaminates for which guidelines have been established to assist public water systems in managing their drinking water for aesthetic considerations, such as taste, color, and odor.

| Secondary Contaminants | Date(s) Collected | Result or Range Detected | Average Detected | SMCL | ORSG                   | Possible Source  |
|------------------------|-------------------|--------------------------|------------------|------|------------------------|--|
| Iron (ppb)             | 4-3-23            | ND                       | -                | 300  | N/A                    | Naturally occurring, corrosion of cast iron pipes          |
| Manganese* (ppb)       | 4-3-23            | ND                       | -                | 50   | Health Advisory of 300 | Natural sources as well as discharges from industrial uses |

\* EPA has established a lifetime Health Advisory (HA) for manganese of 0.3 mg/L and an acute HA at 1.0 mg/L

## 6. COMPLIANCE WITH DRINKING WATER REGS

### Does My Drinking Water Meet Current Health Standards?

We are committed to providing you with the best water quality available. We are proud to report that last year your drinking water met all applicable health standards regulated by the state and federal government.

### Do I Need To Be Concerned About Certain Contaminants Detected In My Water?

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.** The Adams Fire District 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 for 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

## 7. EDUCATIONAL INFORMATION

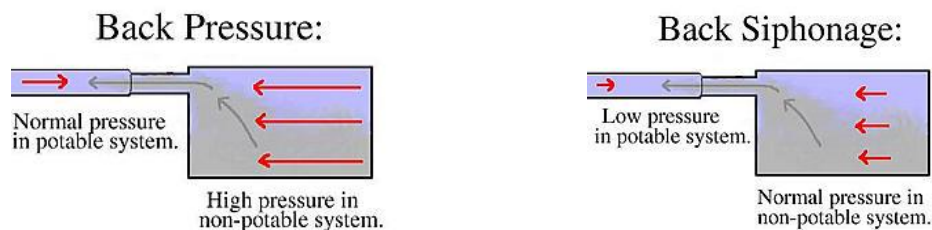
The Adams Fire District makes every effort to ensure that the water delivered to your home and business is clean, safe and free of contamination. Our staff works very hard to protect the quality of the water delivered to our customers from the time the water is extracted via deep wells from underground aquifers throughout the entire treatment and distribution system. But what happens when the water reaches your home or business? Is there still a need to protect the water quality from contamination caused by a cross-connection? If so, how?

### What is a Cross Connection and What Can I do about it?

A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you're going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops (say because of fire hydrant use in the area) when the hose is connected to the fertilizer, the fertilizer may be pulled back into the drinking water pipes through the hose. Using an attachment on your hose called a backflow-prevention device can prevent this problem.

### What is a backflow?

Backflow is the undesired reverse of the water flow in the drinking water distribution lines. This backward flow of water can occur when the pressure created by equipment or a system such as a boiler or air-conditioning is higher than the water pressure inside the water distribution line (back pressure), or when the pressure in the distribution line drops due to routine occurrences such as water main breaks or heavy water demand causing the water to flow backward inside the water distribution system (back siphonage). Backflow is a problem that many water consumers are unaware of, a problem that each and every water customer has a responsibility to help prevent.



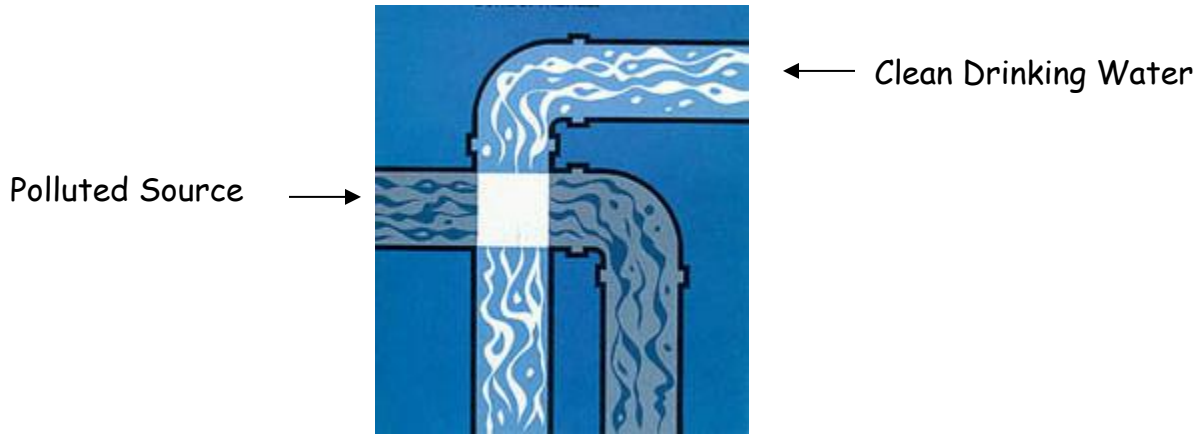
### What can I do to help prevent a cross-connection?

Without the proper protection something as simple as a garden hose has the potential to contaminate or pollute the drinking water lines in your house. In fact, over half of the country's cross-connection incidents involve unprotected garden hoses. There are very simple steps that you as a drinking water user can take to prevent such hazards, they are:

- **NEVER** submerge a hose in soapy water buckets, pet watering containers, pool, tubs, sinks, drains or chemicals.
- **NEVER** attach a hose to a garden sprayer without the proper backflow preventer.
- Buy and install a hose bibb vacuum breaker in any threaded water fixture. The installation can be as easy as attaching a garden hose to a spigot. This inexpensive device is available at most hardware stores and home-improvement centers.
- Identify and be aware of potential cross-connections to your water line.
- Buy appliances and equipment with a backflow preventer.
- Buy and install backflow prevention devices or assemblies for all high and moderate hazard connections.

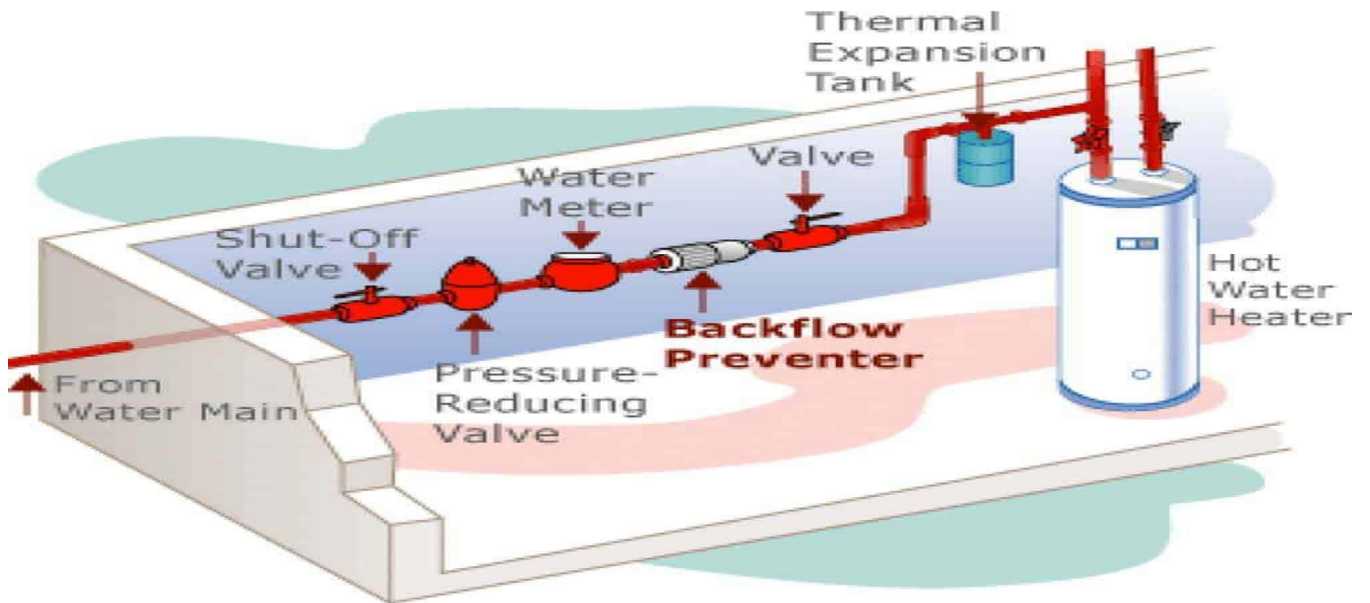
If you are the owner or manager of a property that is being used as a commercial, industrial, or institutional facility you must have your property's plumbing system surveyed for cross-connection by your water purveyor. If your property has NOT been surveyed for cross-connection contact your water department to schedule a cross-connection survey.

**What is a Cross Connection and what can I do about it?**



A cross connection is a connection between a drinking water pipe and a polluted source. The pollution can come from your own home. For instance, you are going to spray fertilizer on your lawn. You hook up your hose to the sprayer that contains the fertilizer. If the water pressure drops at the same time you turn on the hose, the fertilizer may be sucked back into the drinking water pipes through the hose. This problem can be prevented by using an attachment on your hose called a backflow-prevention device.

The Adams Fire District recommends the installation of backflow prevention devices, such as a **low-cost** hose bibb vacuum breaker, for all inside and outside hose connections. You can purchase these devices at a hardware store or plumbing supply store. This is a fantastic way for you to help protect the water in your home, while our check valve(as shown below) installed within your homes at our meter set protects drinking water provided to you before entering your home. For additional information on cross connections and on the status of your water system's cross connection program, please call Adams Fire District Superintendent John C. Barrett at (413) 743-0978, ext. 13.



## 8. ADDITIONAL INFORMATION

This report is written in house, with printing completed locally by our friends at Adams Specialty and Printing. Many of the entries within this report are not required, however we believe presenting to you a full report of our water quality parameters evaluated throughout the year is not only deserving, but essential to creating transparency, and confidence that we are proactive in providing the best services in the most efficient manner we can to our customers. It is our goal with this report to meet requirements, but equally important for us, is to present a report to you that may be easier to understand as you seek knowledge about your water. If at any time you have questions in regard to this report, or any water related question, please feel free to contact us.

Pumping totals for the year 2023 were 241,831,000 gallons, with an average pumping of 662,551 gallons per day. We completed 191 Total coliform samples, 48 samples to monitor our Corrosion Control injection program and 156 chlorine residuals throughout our distribution system to evaluate our chlorine injection program. MassDEP regulates our chlorine injection to a minimum of 0.2 ppm and a maximum of 4.0 ppm. Our target injection has been established at 0.3 ppm per constant evaluation of system residuals. Please refer to page 6 for more information on Chlorine.

We have been busy with all our Best Management Practices (BMP's) implemented to lower our Unaccounted Water losses and minimize costs for lost water that is not billed/accounted. In 2013, we peaked at 36% of our pumped water being unaccounted for, and an average pumping of just over 1,000,000 gallons per day. We have steadily brought these totals down to just over 3% unaccounted and daily pumping as listed above at 662,551 gallons per day.

Why does all this matter, you may ask? Our systems piping is fairly old, and our piping is smaller in pipe size compared to modern distribution systems, as most of the old factories in Town had their own well supplies as Specialty Minerals continues to do. Our smaller pipe size is conducive to fresh water being quickly delivered from our wells, instead of being stagnant in larger piping, however the added burden of leaking water can limit our pipes capacities that could be utilized in the event of fire demands, which combine with our drinking water demands. In addition, there are costs incurred here. We are required to pay for all the water we pump annually from the ground, in addition to incurring debt for electricity, as our water is pumped five separate times to supply the Towns various elevations. You may begin to see why it is important to maintain all our BMP's that have minimized our costly losses.

The big topic's that are prominent in the news this year concerning water is again PFAS contamination, but new is a Federal mandated inventory of every service connection to all water systems in the United States. The goal of this project has been to identify the type of service line material, mainly to acquire a count of all lead service lines still connected to Public Water Systems supplying homes with water.

Just as the District took a proactive approach in testing for PFAS ahead of approved Regulation, we also decided in 2018, in preparation of this requirement, for our trained staff to document these services while replacing meters as opposed to requesting our customers to complete the identification process of their service lines.

In November of 2022 we began planning to acquire funding for assistance to compile this data for the due date of October 16<sup>th</sup>, 2024. With almost 40,000 data entry points to meet compliance for our system, it was apparent this project was too much for us to manage while meeting daily workloads and ongoing projects. On June 1<sup>st</sup> of 2023, we received a \$50,000 grant to complete this requirement. We have been entering data to meet this compliance for 6 years now, and as you read this, I am hoping we will be close to final review for submission. We have not found any lead service lines at this point in Adams or have any records of such installations.

Please see our 147th Annual Report, which may be obtained at our office for more District information. Please visit our website, [www.adamsfiredistrict.com](http://www.adamsfiredistrict.com) and follow us on Facebook for more current information.

Adams Fire District Superintendent

John Barrett