

Village of Ada Water Department 2019 Drinking Water Quality Report

The Ada Water Department has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

Sources of Ada Drinking Water

The Ada Water Department receives its drinking water from three wells at the water treatment plant. The well water is pumped from the aquifer under Ada by the wells, aerated, softened, stabilized, filtered, chlorinated, fluoridated and pumped to the distribution system for your use.

The aquifer that supplies drinking water to the Village of Ada's wellfield has a high susceptibility to contamination. This determination was made because of the following reasons:

- the depth to water in the carbonate aquifer is generally between 20 and 40 feet below the ground surface;
- many (probably in excess of 100) unused wells exist within the protection area, which breach the confining layer and provide a direct pathway from the ground surface to the aquifer; and
- numerous other potential significant contaminant sources exist within the protection area.

This does not mean that the aquifer will become contaminated, only that under the existing conditions ground water could become impacted by potential contaminant sources. A review of the Village of Ada's water quality record currently available in Ohio EPA's drinking water compliance database did not reveal any evidence of chemical contamination at levels of concern in the aquifer.

Please note that this water quality evaluation has some limitations:

- 1) The data evaluated is for treated water samples only, as Ohio EPA's monitoring requirements are for the water being provided to the public, not the water before treatment.
- 2) Sampling results for coliform bacteria and naturally-occurring inorganic compounds (other than arsenic) were not evaluated for this assessment, because they are not a reliable indicator of aquifer contamination.

The Village of Ada has identified 33 potential contaminant sources that lie within the determined protection area, not including the abandoned wells. Some of the types of potential contaminant sources present are underground storage tanks, present and former dry cleaners, automotive service stations, a football factory, a former junkyard, former quarries, roads, and a railway.

Protective Strategies

Protective strategies are activities that help protect a drinking water source from becoming contaminated or further contaminated. Implementing these activities can provide a number of long-term benefits, including:

- protecting the health of the consumers;
- preserving water resources for future generations;
- avoiding the expense of cleaning up a contaminated water supply or finding alternative sources of water; and
- preserving or enhancing the economic value of the area by securing an abundant supply of clean water.

The Village of Ada has outlined its proposed protective strategies in the April 1996 document "*Wellhead Protection Education and Management Plan*," prepared by S.A. Smith Consulting Services. These strategies were endorsed by Ohio EPA in 1996.

The Wellhead Protection Education and Management Plan is available to the public by contacting the Ada Water Department at 419-634-4045.

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What are sources of contamination to drinking water?

The 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:

- a) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- b) Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- c) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses;
- d) 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 systems; and
- e) 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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

General Health Information: who needs to take special precautions?

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 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) or at <https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-your-drinking-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 Village of Ada 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>.

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What is a cross-connection?

Any physical connection created 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. 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.

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 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?

At their discretion, the water supplier may waive the requirement for a backflow prevention device 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 is defined as all buildings, dwellings, structures or

What causes backpressure?

Backpressure occurs when a higher opposing pressure is applied against the public water system's supply pressure and overcomes 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 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 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.

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; and
- 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 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 to verify that conditions have not changed which would warrant installation of a backflow prevention device. 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 cause backsiphonage by reducing the pressure in water mains. The following requirements are in place to help prevent backsiphonage:

- 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 domestic-use booster pumps must be equipped with a low suction cut-off switch that is tested and certified every year; and
- booster pumps used in a fire suppression system must be equipped with either a low-pressure cut-off device or a minimum pressure sustaining valve for existing installations and must be equipped with a minimum pressure-sustaining valve for all new installations. The low-pressure cut-off device and/or the minimum pressure-sustaining valve must be 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 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.

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 prevention device* at the meter and/or at the source of the hazard.

*Check with your water supplier to verify which backflow prevention device 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 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 hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations.



Backflow Prevention and Cross-Connection Control

Protecting our Public Water System

March 2010



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About your drinking water: water quality test results

The EPA requires regular sampling to ensure drinking water safety. We conducted sampling for bacteria, nitrates and disinfection byproducts during 2019. Those test results were below the limits set by the EPA. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. This report shows regulated and unregulated contaminants that were detected during 2019.

TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
Disinfectant and Disinfectant By-Products							
Total Chlorine (ppm)	MRDLG = 4	MRDL = 4	1.5	1.1-1.9	No	2019	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	N/A	60	28.5	<6 - 28.5	No	2019	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N/A	80	42.1	33.9-42.1	No	2019	By-product of drinking water disinfection
Inorganic Contaminants							
Fluoride (ppm)	4	4	1.1	.8-1.3	No	2019	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15	17.3	0	No	2019	Corrosion of household plumbing systems; erosion of natural deposits	
1 out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.							
Synthetic Organic Contaminants Including Pesticides and Herbicides							
No synthetic organic contaminants were detected in the past 5 years							
Bacteriological							
Total Coliform			N/A		No	2019	

Comments on regulated contaminants

Regulated contaminants are contaminants that have monitoring and MCL requirements set by the Ohio EPA.

Drinking water containing fluoride is considered beneficial by The Center for Disease Control and Prevention.

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Definitions of some terms contained within this report.

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 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.

Parts per Million (ppm) or Milligrams per Liter (mg/L) are units of measure for concentration of a contaminant. One part per million corresponds to one ounce in 7,350 gallons of water.

Parts per Billion (ppb) or Micrograms per Liter ($\mu\text{g/L}$) are units of measure for concentration of a contaminant. One part per billion corresponds to one ounce in 7,350,000 gallons of water.

Picocuries per liter (pCi/L): A common measure of radioactivity.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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

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

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.

Additional Information

The Ada Water Department operated under an unconditional license to operate from the Ohio EPA in 2019.

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of Ada Village Council, which meets in the Ada Municipal Building on the first and third Tuesday of each month at 6:30 p.m.

Water system contacts

For more information on your drinking water contact the Water and Sewer Office at 419-634-4045.