City of Sidney, Ohio
Drinking Water
Consumer Confidence Report

2020

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City of Sidney

2020 Drinking Water Consumer Confidence Report

The City of Sidney Water Treatment Plant has prepared the following report to provide information to you, the consumer, on the quality of our drinking water. This report is required as part of the Safe Drinking Water Act Reauthorization of 1996 and is required to be delivered to the consumers by July of each year. Included in this report is general health information, water quality test results, how to participate in decisions concerning your drinking water, and water system contacts.

What's the source of your drinking water?

The City of Sidney's public water system receives its water from both ground water and surface water sources. The ground water sources are pumped from 4 bedrock water supply wells located along the Great Miami River, as well as, from 3 gravel packed sand and gravel wells in our Washington Township well field. Surface water is drawn from intakes at the low head dams on Tawawa Creek and the Great Miami River. These multiple sources of water permit the selection of water from any source or combination of sources to achieve the required volume and best quality. It is our desire to rely more heavily on our groundwater source moving forward to lessen the susceptibility of potential contamination. Our ground water sources will be our primary source of drinking water with the surface water sources being our back-up. Surface waters are by their nature susceptible to contamination, and numerous potential contaminant sources along their banks make them more so. The protection areas around Tawawa Creek, the Great Miami River and the well field include a moderate number of potential contaminant sources, including agricultural run-off, inadequate septic systems, and road and rail bridge crossings. As a result, the drinking water supplied to the City of Sidney's public water system is considered to have a high susceptibility to contamination.

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the appropriate authorities. Only by working together can we ensure an adequate safe supply of water for future generations. More detailed information is provided in the City of Sidney Drinking Water Source Assessment Report. For a copy of the complete report, please contact the Utilities Director, William Blakely at (937) 498-8152; or Seth Epley, WTP Assistant Superintendent at (937) 498-8106.

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 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 byproducts 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, USEPA 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 Federal EPA Safe Drinking Water Hotline (1-800-426-4791).

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 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)

About your drinking water

The EPA requires regular sampling to ensure drinking water safety. The City of Sidney Water Department conducted sampling for the following contaminants in 2020: Total Coliform, E. coli, Total Organic Carbon, Turbidity, Microcystins, 12 Inorganics, and 3 Synthetic Organic Contaminants including Pesticides and Herbicides, lead and copper; and 21 Volatile Organic Contaminants. Samples were collected for a total of 48 different contaminants, most of which were not detected in the City of Sidney drinking water supply.

Staff & Treatment

The Water Treatment Plant is staffed 24 hours a day, 365 days per year, by a total of 10 personnel. All personnel operating the treatment plant are required to be licensed by the State of Ohio EPA. Water plant personnel are also certified by Ohio Environmental Protection Agency for the purpose of performing chemical and bacteriological testing, making us the only certified laboratory in Shelby County. We also perform testing and calibration of analytical equipment for surrounding communities. The City's Water Treatment Plant capacity of 10 million gallons per day still meets present and future needs. The processes used to treat the water include; powdered activated carbon to control taste and odors, herbicides and pesticides; coagulation to concentrate dissolved solids; sedimentation to remove particulates and precipitated solids; filtration to remove turbidity and other harmful contaminants; and disinfection with chlorine to kill any remaining bacteria and viruses throughout the distribution system.

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.

Maximum Residual Disinfectant Level (MRDL): The highest residual disinfectant level allowed.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of residual disinfectant below which there is no known or expected risk to health.

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

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

Parts per Million (ppm): Units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days.

Parts per Billion (ppb): Units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

The "<"symbol: A symbol which means less than. A result of <5 means that the lowest level that could be detected was 5 and the contaminant in that sample was not detected.

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

LRAA: Locational Running Annual Average.

ND: Non-detect (below detectible limit)

In 2020 the City of Sidney Public Water System had an unconditioned license to operate the water system.

List of contaminants detected in Sidney's Drinking Water

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical source of contaminants
Microbiological Contaminants							
Turbidity (NTU)	NA	TT	0.058	.04-.10	NO	2020	Soil runoff
Turbidity (% Meeting Standard)	NA	TT	100%	100%-100%	NO	2020	
Turbidity is a measure of the cloudiness of water and is an indication of the effectiveness of our filtration system. The Turbidity limit set by the EPA is 0.3 NTU in 95% of the daily samples and shall not exceed 5 NTU at any time. As reported above, the City of Sidney's highest recorded turbidity result for 2020 was 0.10 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.							
Inorganic Contaminants							
Fluoride (ppm)	4	4	1.19	.69 - 1.26	NO	2020	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	0.64	0 - 1.36	NO	2020	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Residual Disinfectants							
Total Chlorine (ppm)	MRDLG 4	MRDL 4	1.77	1.74 - 1.77	NO	2020	Water additive used to control microbes.
Disinfection By-products							
TTHM (Total Trihalomethanes) (ppb)	NA	80	50.68	22.20 – 61.0	NO	2020	By-product of drinking water chlorination
HHA5 (Haloacetic Acids) (ppb)	NA	60	10.27	0 – 13.8	NO	2020	By-product of drinking water chlorination

Lead and Copper						
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	NA	<5.0	NO	2020	Corrosion of household plumbing systems
	0 out of 30 samples were found to have lead in excess of the lead AL of 15ppb All samples were below the detectable limit					
Copper (ppm)	1.3	NA	<50	NO	2020	Corrosion of household plumbing systems
	0 out of 30 samples were found to have lead in excess of the Copper AL of 1.3ppm All samples were below the detectable limit					

Total Organic Carbon (TOC)						
Minimum Ration of % removal to required % removal	**MCL**	**Level Found**	**Range of Monthly Rations**	**Violation**	**Year Sampled**	**Typical Source of Contaminants**
1	TT	4.44	0-6.67	NO	2020	Naturally present in the environment
The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between percent of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one (1) indicates a violation of the TOC removal requirements.						

Unregulated Contaminates					
(UCMR4) Unregulated Contaminants (Units)	**Sample Year**	**Average Level Found**	**Range of Detections**		**Location**
			Low	**High**	
Bromide, as Br - unfiltered (ppb)	2020	42.3	38.5	46.1	Raw Water
Total Organic Carbon (TOC) (ppb)	2020	1083.5	1014.9	1152.1	Raw Water
Haloacetic Acids (HAA5) (ppb)	2020	7.4	5.8	8.3	Distribution
Haloacetic Acids (HAA6Br) (ppb)	2020	6.2	5.1	12.2	Distribution
Haloacetic Acids (HAA9) (ppb)	2020	11.0	8.4	12.2	Distribution
Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2020 the City of Sidney participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call Seth Epley, Water Treatment Plant Assistant Superintendent at (937) 498-8106.					

Average Daily Water Quality			
Secondary Contaminants	**Secondary Standard**	**Average 2020 Level**	**Violation**
Water Stability	Non-Corrosive	Non-Corrosive	NO
Odor (TON)	3	0	NO
pH	7.0-10.5	9.5	NO
Total Alkalinity (ppm)	N/A	70.2	NO
Total Hardness (ppm)	N/A	116.3	NO
Non-Carbonate Hardness (ppm)	N/A	46.1	NO
Magnesium (ppm)	N/A	15.3	NO
Phosphate as Total P	N/A	0.49	NO

The tables above list all of the latest levels of drinking water contaminants that we detected in the City of Sidney's drinking water within the past 5 years. (See sample year date) Although many more contaminants were tested, only those substances listed were found in your water. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination.

Nitrate

Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

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. The City of Sidney Water Treatment Plant 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 at 800-426-4791 or at http://www.epa.gov/safewater/lead.

Cryptosporidium Information

The City of Sidney Water Treatment Plant monitored for Cryptosporidium in the source water during 2017. Cryptosporidium was detected in 2 samples of 12 collected from the raw water. It was not detected in the finished water. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current

test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immune-compromised people are at a greater risk of developing life-threatening illness. We encourage immune-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

Cyanobacteria Information

The City of Sidney Water Treatment Plant monitored for Cyanobacteria in the surface water source during 2020. Cyano-bacteria was detected in 18 samples out of 18 collected from our surface water source. It was not detected in the finished water. Cyanobacteria is a photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and freshwater ecosystems, and may produce cyanotoxins, which at sufficiently high concentrations, can pose a risk to public health.

Microcystins Information

The City of Sidney Water Treatment Plant monitored for microcystins in both its raw water and finished drinking water in 2020. Microcystins were not detected in all 40 samples of raw water and 40 samples of finished drinking water through the weekly samples for the year. All results were below the detectible limit of 0.30 ppb. Mycrocystins are liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin. The MCL for public health for microcystins has been established as 0.3 ppb for children under 6 and sensitive populations, and 1.6 ppb for children 6 and older and adults.

PFAS Information

In 2020, the City of Sidney was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. PFAS are a group of man-made chemicals applied to many consumer goods to make them waterproof, stain resistant, or nonstick. PFAS are also used in products like cosmetics, fast food packaging, and a type of firefighting foam called aqueous film forming foam (AFFF) which are used mainly on large spills of flammable liquids, such as jet fuel. PFAS are classified as contaminants of emerging concern, meaning that research into the harm they may cause to human health is still ongoing. The most commonly studied PFAS are perfuorooctanoic acid (PFOA), perfluorooctane sulfonic acid (PFOS), perfluorohexane sulfonic acid (PFHxS), and perfluorononanoic acid (PFNA).

Six PFAS compounds were sampled, and none were detected in our finished drinking water. For more information on PFAS, including the health effects of PFAS, PFAS in drinking water, water testing and treatment, and other PFAS activities in Ohio, visit the Ohio PFAS webpage here: pfas.ohio.gov. For more information on PFAS and your health, contact the ODH Health Assessment Section at BEH@odh.ohio.gov or at (614) 728-9452.

How Do I Participate in Decisions Concerning My Drinking Water?

Public participation and comment are encouraged at regular meetings of City Council which meets regularly on the second and fourth Monday of each month at 6:30 pm in the Council Chambers at City Hall located at 201 W. Poplar Street. Comments and concerns can also be directed to Seth Epley, WTP Asst. Superintendent, at (937) 498-8106; or Bill Blakely, Utilities Director, at (937) 498-8152. This report can also be found on our website at www.sidneyoh.com.

Backflow Prevention and Cross-Connection Control

Protecting our Public Water System

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 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 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 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. 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;
- 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

Questions concerning backflow prevention and cross-connection control may be directed to the Shelby County Health Department **(937) 498-7249**, the City of Sidney Utilities Director **(937) 498-8152,** or the Ohio EPA District Office that services Shelby County **(937) 285-6357**.

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.**