

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. City of Sidney 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> and <http://www.epa.gov/lead>

Initial Distribution System Evaluation (IDSE)

Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system is required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE) and is intended to identify locations in our distribution system with elevated disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2013. Disinfection byproducts are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

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).

FOR MORE INFORMATION about your drinking water and for opportunities to get involved, please contact Larry Broughton, Utilities Director, by calling (937) 498-8152 or writing to 201 West Poplar Street, Sidney, Ohio 45365. Also, you are welcome and encouraged to attend the next public meeting on the Annual Water Quality Report on July 18, 2017 at 3:00 p.m. The meeting will take place at the Water Treatment Plant, located at 880 East Court Street. This report can be viewed on the on the City's web-site at www.sidneyoh.com

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

Not Detected (ND): The concentration of a contaminant was not detected, or was below the detectable limit of the analysis performed

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

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

IDSE: Initial Distribution System Evaluation

Water Conservation Tips

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? Luckily, there are many low-cost and no-cost ways to conserve water. Small changes can make a big difference .

- Take short showers - a 5 minute shower uses 4 to 5 gallons of water compared to up to 50 gallons for a bath.
- Shut off water while brushing your teeth, washing your hair and shaving and save up to 500 gallons a month.
- Run your clothes washer and dishwasher only when they are full. You can save up to 1,000 gallons a month.
- Fix leaky toilets and faucets. Faucet washers are inexpensive and take only a few minutes to replace.
- Adjust sprinklers so only your lawn is watered. Apply water only as fast as the soil can absorb it and during the cooler parts of the day to reduce evaporation.
- Teach your kids about water conservation to ensure a future generation that uses water wisely. Make it a family effort to reduce next month's water bill!

Visit www.epa.gov/watersense for more information.

CITY OF SIDNEY—DRINKING WATER REPORT 2016 CONSUMER CONFIDENCE REPORT

The City of Sidney has been providing clean, potable drinking water from its present facility since 1979. As a City customer, you are our most precious resource and we take our commitment of being your drinking water supplier very serious. We have a current, unconditioned license to operate our water system. As shown in this annual report, which covers the 2016 calendar year, Sidney's drinking water surpassed the strict regulations of both the State of Ohio and the United States Environmental Protection Agency (EPA). The EPA requires all public water suppliers to provide each customer an annual report, in order for you to evaluate our progress.

Source Water

The City of Sidney's public water system uses surface water drawn from Tawawa Creek and the Great Miami River as well as ground water pumped from four water supply wells. The intake system includes low head dams on the Great Miami River and Tawawa Creek and is designed to permit the selection of water from any source or any combination of sources. 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.

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:

- I. **Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- II. **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;
- III. **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;
- IV. **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 stormwater runoff, and septic systems; and
- V. **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

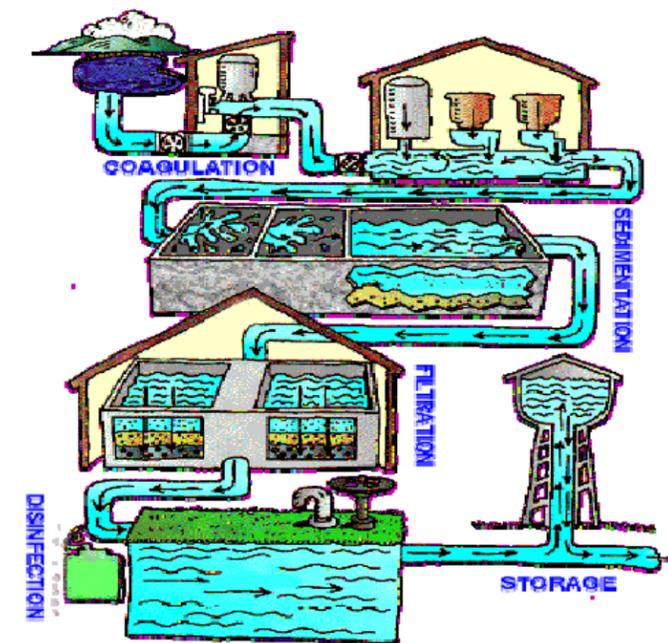
Historically, the Sidney public water system has effectively treated this source water to meet drinking water quality standards. The potential for water quality impacts can be further decreased by implementing measures to protect Tawawa Creek, the Great Miami River and the local aquifer. More detailed information is provided in the City of Sidney's Drinking Water Source Assessment Report or the City of Sidney's Wellhead Protection Program.

Together, these sources of information aid our staff in locating potential sources of contamination within our community and our watershed. The City of Sidney offers residents a chance to monitor the water level in the Great Miami River from their own homes. Please visit our web site at www.sidneyoh.com and click on "River Flood Action Plan".

Treatment & Staff

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 odors, herbicides and pesticides; coagulation to remove sediments; disinfection to kill viruses and microbial contaminants; and filtration to remove other harmful contaminants.

The Water Treatment Plant is staffed 24 hours a day, 365 days per year, by a total of 9 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.



Typical Water Treatment Process

Coagulation removes dirt and other particles suspended in water. Alum and other chemicals are added to water to form tiny sticky particles called "floc" which attract the dirt particles. The combined weight of the dirt and the alum (floc) become heavy enough to sink to the bottom during sedimentation. The heavy particles (floc) settle to the bottom and the clear water moves to filtration. The water passes through filters, some made of layers of sand, gravel and charcoal that help remove even smaller particles. A small amount of chlorine is added or some other disinfection method is used to kill any bacteria that may be in the water. Water is placed in a closed tank or reservoir in order for disinfection to take place. The water then flows through pipes to homes and businesses in the community.

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. 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. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions in a table contained within this report titled “Definitions of some terms contained within this report”.

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Disinfectants & Disinfection By-Products								
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)								
Chlorine (as Cl ₂) (ppm)	4	4	2.5	1.5	2.5	2016	No	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	18.14	7.67	20.65	2016	No	By-product of drinking water chlorination
TTHMs [Total Trihalomethanes] (ppb)	NA	80	66.25	13.7	82.71	2016	No	By-product of drinking water disinfection
Total Organic Carbon (% Removal)	NA	TT	52.07	NA	NA	2016	No	Naturally present in the environment
*Total Organic Carbon (Compliance Value)	NA	TT	3.36	2.09	3.91	2016	No	
*The value reported under “Level Detected” for Total Organic Carbon (TOC) is the lowest running annual average ratio between the percentage 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 indicates a violation of the TOC removal requirements. The value reported under the “Range” for TOC is the lowest monthly ratio to the highest monthly ratio.								
Microbiological Contaminants								
Total Coliform (positive samples/month)	0	1	0	NA	NA	2016	No	Naturally present in the environment
Turbidity (NTU)	TT	0.3	0.29	0.04	0.29	2016	No	Soil runoff
100% of the samples were below the TT value of 0.3. A value less than 95% constitutes a TT violation. The highest single measurement was 0.29. Any measurement in excess of 1.0 is a violation unless otherwise approved by the state.								
Synthetic organic contaminants including pesticides and herbicides								
Atrazine (ppb)	3	3	1.45	ND	1.45	2016	No	Runoff from herbicide used on row crops
Contaminants	MCLG	AL	Your Water	Sample Date	# Samples Exceeding AL	Exceeds AL	Typical Source	
Inorganic Contaminants								
Copper - action level at consumer taps (ppm)	1.3	1.3	< 0.05	2014	0 out of 30	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps (ppb)	0	15	< 5.0	2014	0 out of 30	No	Corrosion of household plumbing systems; Erosion of natural deposits	

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Level Detected	Range		Sample Date	Violation	Typical Source
				Low	High			
Inorganic Contaminants								
Fluoride (ppm)	4	4	1.08	0.93	1.08	2016	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	3.50	0.57	3.50	2016	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium (optional) (ppm)	NA	NA	29	11.4	29	2016	No	Erosion of natural deposits; Leaching
Radioactive Contaminants								
Radium (combined 226/228) (pCi/L)	0	5	1.4	NA	NA	2016	No	Erosion of natural deposits
Gross Alpha (pCi/L)	0	15	1.1	NA	NA	2016	No	Erosion of natural deposits
Unregulated Contaminants			Reported Level			Range		
			Low			High		
chromium (total chromium) (ppb)			0.289			0.242	0.36	
chromium-6 (hexavalent chromium) (ppb)			0.281			0.256	0.33	
molybdenum (ppb)			7.109			6.009	7.9	
strontium (ppb)			1168.9			977.835	1400.00	
vanadium (ppb)			0.367			0.32	0.46	
Contaminants	Secondary Standard		Your Water	Violation	Explanation and Comment			
Chloride (ppm)	250		31	No				
Sulfate (ppm)	250		47	No	Erosion of natural deposits			
Corrosivity	Non-corrosive		Non-corrosive	No				
Odor (TON)	3		0	No				
pH	7.0 – 10.5		9.3	No				
Total Dissolved Solids	500		104 - 179	No				
Total Alkalinity	N/A		39	No				
Total Hardness	N/A		96	No				
Non-Carbonate Hardness	N/A		57	No				
Magnesium	N/A		4	No				