

Village of Cadiz

Drinking Water Consumer Confidence Report 2016 Data

The Village of Cadiz public water system uses surface water from Tappan Lake, which was created by impounding Little Stillwater Creek. Two secondary sources, Sparrow Reservoir and two public water supply wells at the Cadiz well field, are maintained as back-ups but currently are not in use. For the purpose of source water assessments, in Ohio all surface waters are considered to be susceptible to contamination. By their nature, surface waters are readily accessible and can be contaminated by chemicals and pathogens which may rapidly arrive at the public drinking water intake with little warning or time to prepare. The drinking water source protection area is predominantly deciduous forest and contains relatively few potential contaminant sources. These include oil and gas wells, mined areas, residential septic systems, agricultural activities, and road crossings.

The Village of Cadiz public water system treats the water to meet drinking water quality standards, but no single treatment technique can address all potential contaminants. The potential for water quality impacts can be future decreased by implementing measures to protect Tappan Lake and its watershed. More detailed information is provided in the Village of Cadiz Drinking Water Source Assessment Report, which can be obtained by calling Thomas Carter at 740-942-3884.

*"Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was 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 2012. 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."

SOURCES OF 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 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; (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, includes 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).

Cadiz Water Department routinely monitors for contaminants in your drinking water according to Federal and State laws. The table shows the results of our monitoring for the period of January 1st to December 31st, **2016**. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It's important to remember that the presence of these contaminants does not necessarily pose a health risk.

Definitions of some terms contained within this report.

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

Maximum Contaminant Level- The "Maximum Allowed" (MCL) is 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 Contaminated Level Goal- The "Goal" (MCLG) is 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.

Nephelometric Turbidity Unit (NTU)- nephelometric turbidity unit is a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Parts per million (ppm)- one part per million corresponds to one minute in two years or a single penny in \$10,000.

Parts per billion (ppb) or Micrograms per liter- one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

Action Level- the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Total Trihalomethanes- TTHM's

Haloacetic Acids- HAA5

Less Than =<

NA: Not Applicable

IDSE: Initial Distribution System Evaluation

CONTAMINANTS SOURCE (units)	MCLG	MCL	Level Found	Range Of Detection	Violation	Sample Year	Typical Source of Contaminants
Nitrate (ppm)	10	10	.81	<0.10-0.81	No	2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.
Turbidity (NTU)	N/A	TT	.209	<.026-.209	No	2016	Turbidity is a Measure of the cloudiness of water and is an indication of the effectiveness of the filtration system, soil runoff.
Turbidity% sample meeting standard	N/A	TT	100%	100%	No	2016	
Fluoride (ppm)	4	4	1.48	.34-1.48	No	2016	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
TTHM (ppb)	0	80	68.93	38.1-103.0	No	2016	By-products of drinking water chlorination.
HAAS (ppb)	0	60	46.93	11.8-71.2	No	2016	By-products of drinking water chlorination.
TOC (ppm)	N/A	TT	2.39	1.69-3.58	No	2016	Naturally present in the environment.
Total Chlorine (ppm)	4	4	2.27	1.71-2.53	No	2016	Water additive used to control microbes.

The Village of Cadiz Water Department had taken 20 lead and copper samples between August 26, 2014 and September 16, 2014 and all samples were below the Range of Detection.

IMMUNO-COMPROMISED PERSONS

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised person 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)**

We're pleased to present to you this year's Annual Quality Water Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the *surface water treatment* process and protect water resources. We are committed to ensuring the quality of your water. Our water source is *both surface and ground water. The water supply is from Tappan Lake Reservoir which is located West of Cadiz, and we maintain as back-up the Sparrow Reservoir which is located East of Cadiz on Reservoir Road. The ground water supply is from the well field at the Southwest side of town on College Way.*

If you have any questions about this report or concerning your water utility, please contact:

Thomas Carter, Water Superintendent

740-942-3884

We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the first and third Thursday of each month @ 7:00 p.m. at 128 Court Street. (Council Room)

TOTAL TRIHALOMETHANES (TTHM's)

Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems and may have an increased risk of getting cancer.

The EPA requires regular sampling to ensure drinking water safety. The **Cadiz Water System** conducted samples for **bacteria; inorganic; volatile organics; synthetic organic** contaminant sampling during **2016**. Samples were collected for a total of **110** different contaminants most of which were not detected in the Village of Cadiz water supply. 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. Some of our data, though accurate, are more than one year old.

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 Cadiz 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 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>.

The value under "level Found" for Total Organic Carbon (TOC) is the lowest ratio between percentage of TOC actually 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.

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 5.0 NTU at any time. As reported the Village of Cadiz Water System highest recorded turbidity result for March 2016 was **.209** NTU. And lowest monthly percentage of samples meeting the turbidity limits was 100%.

THIS DOCUMENT CREATED AS A MEMBER BENEFIT FOR OHIO RURAL WATER ASSOCIATION MEMBERS OF WHICH CADIZ IS OF GOOD STANDING. FOR FURTHER DETAILS PLEASE CONTACT ORWA@ 800-589-7985 OR ON THE WEB: WWW.OHIOWATER.ORG OR W

This Consumer Confidence Report (CCR) reflects changes in drinking water regulatory requirements during 2016. All water systems were required to comply with the Total Coliform Rule from 1989 to March 31, 2016, and begin compliance with a new rule, the Revised Total Coliform Rule, on April 1, 2016. The new rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of total coliform bacteria, which includes E. coli bacteria. The U.S. EPA anticipates greater public health protection under the new rule, as it requires water systems that are vulnerable to microbial contamination to identify and fix problems. As a result, under the new rule there is no longer a maximum contaminant level violation for multiple total coliform detections. Instead, the new rule requires water systems that exceed a specified frequency of total coliform occurrences to conduct an assessment to determine if any significant deficiencies exist. If found these must be

corrected by the PWS. **The Village of Cadiz did not have any positive samples for the year 2016.**

The Village of Cadiz had a microcystins sample that triggered the action level 1.6 ug/l in the raw water. "Produced by naturally occurring cyanobacteria, also known as blue-green algae, which under certain conditions (i.e. high nutrient concentration and high light intensity) may produce microcystins," "Consuming water containing concentrations of microcystins over the action level may result in abnormal liver functions, diarrhea, vomiting, nausea, numbness or dizziness. Children younger than school age, pregnant women, nursing mothers,, the preexisting liver compromised individuals, those receiving dialysis treatment may be more susceptible than the general population to the health effects of microcystins." The Village of Cadiz has optimized the treatment process and developed a General Plan to treat algae.

Definitions: **Cyanobacteria:** Photosynthesizing bacteria, also called blue-green algae, which naturally occur in marine and fresh waterecosystems, and may produce cyanotoxins which at sufficiently high concentrations can pose a risk to public health. **Mictocystins:** Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin micorcystin. **Cyanotoxin:** Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins and skin toxins. Also sometimes referred to as "Algal toxin."

The Village of Cadiz is an equal opportunity provider, and employer.

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

You are responsible for backflow ordinances 94-03 & 94-04 available at the Billing Office