

**CITY OF ALLIANCE
WATER SYSTEM
CONSUMER CONFIDENCE
REPORT
WATER QUALITY ON TAP**



CITY OF ALLIANCE
504 E. Main Street
Alliance, Ohio 44601

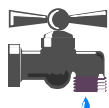
The Carnation City
Toni Middleton, Mayor

Water Treatment Plant
12251 Rockhill Avenue, NE
Alliance, OH 44601

Dr. Dean A. Reynolds
Superintendent

2009

ALLIANCE'S WATER SOURCES



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Drinking water for the City of Alliance (Ohio EPA water system license #7600011) originates from two sources.

Alliance's primary water source is Walborn and Deer Creek Reservoirs. The combined water storage potential is 2.85 billion gallons of raw water. Deer Creek was dedicated on October 25, 1954, to supply raw water to the Alliance Water Treatment Plant.

The secondary source of water is the Mahoning River. Although this source has not been used since 1999, the pumps are kept fully operational to ensure a backup source of supply.

Raw water is drawn through a multi-level intake structure on Deer Creek Reservoir and conveyed to the treatment plant located on North Rockhill Avenue.

The Water Treatment Plant began operation in July, 1993. Current treatment processes include: chlorine dioxide, powdered activated carbon adsorption, alum coagulation, solids-contact clarification, dual-media filtration with granular activated carbon, stability adjustment with caustic soda, chlorine disinfection, and fluoridation.

Alliance's source water is surface water which by its nature is susceptible to contamination especially from potential contaminant sources along its banks. The protection area around Deer Creek Reservoir and the Mahoning River contains several potential contaminant sources, including oil and gas wells, landfills, agricultural areas, septic systems, and road crossings. As a result, the surface water supplied to the City of Alliance is considered to have a high susceptibility to contamination.

Historically, the City of Alliance's 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 Deer Creek Reservoir and the Mahoning River. More detailed information is provided in the City of Alliance's Drinking Water Source Assessment report, which can be obtained by calling 330-829-2241.

ADDITIONAL INFORMATION

Alliance has a current, unconditioned license to operate our water system. All operational personnel at the Alliance Water Treatment Plant are certified through the Ohio EPA Water Supply Certification Program. The water supplied to your home meets or exceeds the established "Water Quality Standards" of the Federal Safe Drinking Water Act (SDWA). There were no plant violations in 2009. The Water/Sewer Advisory Board meets on the first Monday of every month at 9:00 AM at the Wastewater Treatment Plant. The meeting is open to the public. You can also contact Dr. Dean A. Reynolds, Superintendent of Water Treatment, at the address above, or at 330-829-2241. A "Water Quality Report" prepared for the Alliance City Council and the Consumer Confidence Reports of past years are available on the City website at <http://www.cityofalliance.com/water/treatment/watertreatment.htm>

WATER SERVICE PHONE NUMBERS

Water Billing--330-823-3126

Water Main Breaks--330-823-5216; calls after 3:30 pm and weekends--330-829-2241

Water Meter Repairs, Backflow Prevention, and Water Taps--330-823-5216

WATER MONITORING RESULTS

There were no contaminants detected at levels that violated Federal drinking water standards during 2009. However, some contaminants were detected in trace amounts below the legal limits. The contaminants are shown in the table that follows on page 3. Some contaminants are sampled less frequently than once per year; as a result, not all contaminants were sampled in 2009. If a contaminant was detected the last time it was sampled, the amount is included in the table along with the year that the detection occurred.

KEY TO ABBREVIATIONS

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

Maximum Contaminant Level Goal (MCLG): The level of a substance 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 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 disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

Non-Detects (ND): Laboratory analysis indicates the contaminant is not present.

Not Applicable (NA)

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

Range: The lowest level to the highest level of a contaminant detected in the water.

The “<” symbol: means less than.

The “>” symbol: means greater than.

Total Organic Carbon (TOC): The value reported under “level detected” for TOC is the lowest ratio between percent of TOC actually removed to the percent of TOC required to be removed. A value greater than (1) indicates that the water system is in compliance.

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

Turbidity: A measure of the cloudiness of water and does not present any risk to your health. Turbidity is monitored as a good indicator that a water filtration system is functioning properly. The turbidity limit set by the EPA in 2001 is 0.3 NTU in 95% of the daily samples. Turbidity is not to exceed 1 NTU at any time. The Alliance Water Treatment Plant’s highest recorded turbidity result for 2009 was 0.20 NTU and the lowest monthly percentage of samples meeting the turbidity limits was 100%.

The following common scientific measures of substances in water may be difficult to envision. The comparisons listed below are presented to make them easier to understand.

Parts per million (ppm) or milligrams per liter (mg/L). Example: One part per million is equivalent to one minute in two years or a single penny in ten thousand dollars.

Parts per billion (ppb) or micrograms per liter (µg/L). Example: One part per billion corresponds to one minute in two thousand years or a single penny in ten million dollars.

WATER QUALITY DATA

Contaminants (Units)	Violation MCLG	Level Found	Range of Detections	MCLG	MCL	Sample Year	Typical Source of Contaminants
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Bacteriological

Turbidity (NTU)	NO	0.20	0.04-0.20	N/A	TT	2009	Soil runoff
Turbidity	NO	100 %	100%	N/A	TT	2009	Soil runoff
Total Coliform	NO	0	0	N/A	>1	2009	Naturally present in the environment
Total Organic Carbon	NO	1.61	1.28-1.94	N/A	TT	2009	Naturally present in the environment

Inorganic Contaminants

Nitrate (ppm)	NO	0.94	0.12-0.94	10	10	2009	Runoff from fertilizer use; Leachate from septic tanks, sewage; Erosion of natural deposits
Fluoride (ppm)	NO	0.98	0.24-1.10	4	4	2009	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Chlorite (ppm)	NO	0.33	<0.02-0.40	0.8	1.0	2009	By-product of drinking water chlorination
Barium (ppm)	NO	0.02	N/A	2	2	2009	Discharge of drilling waste; Discharge from metal refineries; Erosion of natural deposits

Regulated in the Distribution System Homeowners Tap

Copper (ppb)	NO	90 th percentile 71.0	<10-110	1300	AL=1300	2007	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	NO	90 th percentile 2.3	<2.0-9.3	0	AL=15	2007	Corrosion of household plumbing systems; Erosion of natural deposits

Synthetic Organic Contaminants including Pesticides and Herbicides

Atrazine (ppb)	NO	<0.32	<0.32	3	3	2009	Runoff from herbicide used on row crops
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Volatile Organic Contaminants

Chloroform (ppb)	NO	16	N/A	N/A	N/A	2009	By-product of drinking water chlorination
Bromoform (ppb)	NO	<0.5	N/A	N/A	N/A	2009	By-product of drinking water chlorination
Bromodichloromethane (ppb)	NO	9.6	N/A	N/A	N/A	2009	By-product of drinking water chlorination
Dibromochloromethane (ppb)	NO	4.9	N/A	N/A	N/A	2009	By-product of drinking water chlorination

(Regulated in Distribution System)

Total Trihalomethanes (TTHMs) (ppb)	NO	62.3	30.5-113.0	N/A	80	2009	By-product of drinking water chlorination
Haloacetic Acids (HAA5s) (ppb)	NO	27.1	14.8-39.3	N/A	60	2009	By-product of drinking water chlorination

Residual Disinfectants

Chlorine (ppm)	NO	1.15	0.96-1.27	4	4	2009	Water additive used to control microbes
Chlorine dioxide (ppm)	NO	0.11	0.00-0.11	0.8	0.8	2009	Water additive used to control microbes

Radioactive Contaminants

Gross Alpha (pCi/L)	NO	<3	N/A	0	15	2008	Erosion of natural deposits
Radium 228 (pCi/L)	NO	<1	N/A	0	5	2008	Erosion of natural deposits

Initial Distribution System Evaluation (IDSE)

Total Trihalomethanes (TTHMs) (ppb)	NO	N/A	19.3-101.9	N/A	80	2009	By-product of drinking water chlorination
Haloacetic Acids (HAA5s) (ppb)	NO	N/A	1.7-41.9	N/A	60	2009	By-product of drinking water chlorination

POTENTIAL SOURCES OF DRINKING WATER CONTAMINATION

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 earth, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include the following:

- (A) **Microbial contaminants**, such as viruses, bacteria such as *E. coli*, *Cryptosporidium*, and *Giardia*, may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife;
- (B) **Inorganic contaminants**, such as salts and metals, 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** 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, 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** can be naturally occurring or be the result of oil and gas production and mining activities.

The Alliance Water Treatment Department monitored monthly for cryptosporidium in the source water during a portion of 2009. Cryptosporidium was not detected in the source water during 2009. 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 percent removal. Past monitoring of source water indicated 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 within a few weeks. However, immuno-compromised persons are at greater risk of developing a life threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

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.

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 Alliance Water Treatment Department 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 thirty seconds to two 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>.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that 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**

SPECIAL PRECAUTIONS FOR SOME INDIVIDUALS

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. 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 (see above).