

VILLAGE OF WAKEMAN WATER DEPARTMENT

DRINKING WATER CONSUMER CONFIDENCE REPORT FOR 2023

What's the source of your drinking water?

The Village of Wakeman drinking water is supplied by Northern Ohio Rural Water. The last several pages of this report provide information about Northern Ohio Rural Water suppliers, which are also the initial sources of Wakeman's water.

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 insure an adequate safe supply of water for future generations.

What are the sources of contamination to drinking water?

The sources of drinking water both tap water and bottled water includes 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 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, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulation establishes a limit 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 call the Environmental Protection Agency's 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 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. USEPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other 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 Village of Wakeman, along with Northern Ohio Rural Water and the Cities of Elyria and Lorain conducted sampling for bacterial, inorganic, radiological, synthetic organic and volatile organic contaminants during the year 2023. Samples were collected to analyze for a variety of different contaminants, most of which were not detected in the Village of Wakeman water supply.

"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 Wakeman 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 <http://www.epa.gov/safewater/lead>."

Definitions of some terms contained within this report are outlined on the last page.

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	1.33	1.06-1.61	No	2023	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	N/A	60	28.3	27.1-28.3	No	2023	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	N/A	80	60.3	57.7-60.3	No	2023	By-product of drinking water disinfection

0 of 10 samples were found to have had detectable lead levels.

0 of 10 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.

The Village of Wakeman has a current, unconditional license to operate its water system.

How do I participate in decisions concerning my drinking water?

Public participation and comments are encouraged at regular meetings of Village Council, which is held the second Monday of every month at 59 Hyde St. in Wakeman. The meeting time is 7:30 PM.

For more information on your drinking water contact Trish Summers at 440-225-1680.

The following pages contain source water information as well as a table of detected contaminants from the Cities of Elyria and Lorain Water Departments and the Village of New London, the initial suppliers of Wakeman water.

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 samples analyzed each month and shall not exceed 1 NTU at any time. As reported below, the City of Lorain's highest recorded turbidity result for 2022 was 0.24 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

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. A part per million corresponds to one second in a little over 11.5 days or one ounce in 7,350 gallons of water.

Parts per Billion (ppb) or Micrograms per Liter (ug/L) are units of measure for concentration of a contaminant. A parts per billion corresponds to one second in 31.7 years or one ounce in 7,350,000 gallons of water.

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 of other requirements which a water system must follow.

Locational Running Annual Average (L.R.A.A.): Sample results added together and then divided by the total number of samples taken for a certain period.

N.D.: Not Detected or Below Detection Level

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.

Source Water Assessment Report

City of Elyria – Our water system uses surface water drawn from two intakes in Lake Erie. Although the City of Elyria's surface water intakes are located offshore in Lake Erie, the proximity of Beaver Creek and Martin's Run increases the susceptibility of the source water to contamination. 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 accessible and can be readily contaminated by chemicals and pathogens with relatively short travel time from source to intake.

Based on information compiled for this assessment, the City of Elyria's drinking water source protection area is susceptible to immediate and future contamination from municipal wastewater treatment discharges, air contamination, deposition, runoff from residential, agricultural, and urban areas, oil and gas production, transportation, leaking underground storage tanks, accidental releases and spills from railcars and vehicular traffic as well as from commercial shipping operations and recreational boating.

The City of Elyria's 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 further decreased by implementing measures to protect Lake Erie, Beaver Creek, and Martin's Run. More detailed information is provided in the City of Elyria's Drinking Water Source Assessment report, which can be obtained by calling Elyria Water Works, (440) 324-7669.

City of Lorain – For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be easily contaminated by chemicals and pathogens. Compared to ground water, contaminants in surface water tend to move swiftly, so an upstream spill may rapidly arrive at the public drinking water intake with little warning or time to prepare. Although the City of Lorain's intake is located offshore in Lake Erie, the proximity of the Black River increases the susceptibility of the source water to contamination.

The City of Lorain's drinking water source protection area contains a moderate number of potential contaminant sources, which include accidental spills and releases associated with commercial shipping and recreational boating, air contaminant deposition, contaminants from industries and agricultural runoff along the shore and along streams that empty into the lake, contaminants associated with oil and gas production and transportation, sediments from river dredging and disposal operations, natural erosional processes, contaminated stormwater runoff from urban areas, municipal and home sewerage treatment system discharges, and combined sewer overflows.

Lorain PWS 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 further decreased by implementing measures to protect Lake Erie and the Black River watershed. To obtain a copy of the source water assessment report prepared for Lorain PWS, contact Avery Brown Lorain Water Treatment Plant Superintendent, at (440) 204-2280.

The City of Sandusky- The City of Sandusky Public Water System uses surface water drawn from two intakes: the primary intake located in Lake Erie and an emergency backup intake located in Sandusky Bay. For the purpose of source water assessments, all surface waters in Ohio are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to intake.

Although the water system's primary intake is located offshore in Lake Erie, the proximity of several onshore sources increases the susceptibility of the source water to contamination. The City of Sandusky Public Water System's drinking water source protection area is susceptible to contamination from municipal sewage treatment plants, industrial wastewater, combined sewer overflows, home sewage disposal system discharges, open water dredge disposal operations, and accidental release and spills, especially from commercial shipping operations and recreational boating.

The City of Sandusky 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 mitigated by implementing measures to protect Lake Erie. More detailed information is provided in the City of Sandusky Public Water System's Drinking Water Source Assessment report, which can be obtained by calling (419) 627-5815.

The City of Huron – The City of Huron public water system uses surface water drawn from an intake on Lake Erie. For the purposes of source water protection, 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 City of Huron's drinking water source protection area contains potential contaminate sources such as municipal sewage treatment plants, industrial wastewater, home sewage disposal system discharges, combined sewer overflow, runoff from residential, agricultural and urban areas, oil and gas production and mining operations, as well as accidental releases and spills, especially from commercial shipping operations and recreational boating.

The City of Huron's 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 further decreased by implementing measures to protect Lake Erie. More

detailed information is provided in the City of Huron's Drinking Water Source Assessment report, which can be obtained by calling Jack Evans, at 419-433-9502 or contact by email at jack.evans@huronohio.us

The Village of New London - The Village of New London's public water system uses surface water drawn from an intake from Buck Creek. For the purposes of source water assessments, all surface waters are considered to be susceptible to contamination. By their nature surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to the intake. The Village of New London drinking water source protection area is susceptible to agricultural runoff, pasture, above ground storage tanks, industrial storm water, gas line rupture, gas station runoff, marina boat docks, unsewered areas, cemeteries, oil and gas wells, roadways and railways.

The Village of New London's 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 further decreased by implementing measures to protect Buck Creek. More detailed information is provided in the Village of New London's Drinking Water Source Assessment report, which can be obtained by calling the Village of New London, (419) 929-4091.

2023
NORTHERN OHIO RURAL WATER
MAIN DISTRICT
TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	Year	MCLG [MRDLG]	MCL [MRDL]	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Disinfection Byproducts							
Total Trihalomethanes (ppb)	2023	N/A	80	66.4	20.3-88.6	By-product of drinking water disinfection	NO
Haloacetic Acids (ppb)	2023	N/A	60	43.65	8-54.4	By-product of drinking water disinfection	NO
Total Chlorine (ppm)	2023	4	4	1.5	1.3-1.7	Water additive used to control microbes	NO
Contaminants (Units)	Year	Action Level (AL)		Individual Results over the AL	90% of test levels were less than	Typical Source of Contaminants	Violation
Inorganic Contaminants							
Copper (ppm)	2022	1.3 ppm		N/A	0.1496	Corrosion of household plumbing systems	NO
	0 of 30 samples were found to have copper levels in excess of the copper action level 1.3 ppm.						
Lead (ppb)	2022	15 ppb		52.35	<3.0	Corrosion of household plumbing systems	NO
	1 of 30 samples were found to have lead levels in excess of the lead action level 15 ppb.						

ELYRIA WATER WORKS
TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Inorganic Contaminants							
Barium (ppm)	2023	2	2	0.019	0.019	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Fluoride (ppm)	2023	4	4	0.95902	0.8916-1.015	Erosion of natural resources, additive which promotes strong teeth	NO
Nitrates (ppm)	2023	10	10	1.02	<0.1-1.02	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Microbiological Contaminants							
Total Organic Carbon (TOC)	2023	TT removal > 1.0	N/A	1.32	1.2-1.73	Normally present in the environment	NO
Turbidity (NTU)	2023	N/A	100% <0.3	0.17	0.03-0.17	Soil runoff	NO
Turbidity is the 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 1 NTU at any time. As reported above, the City of Elyria's highest recorded turbidity result for 2023 was 0.17 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.							

LORAIN WATER DEPARTMENT
TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Inorganic Contaminants							
Barium (ppm)	2023	2	2	0.018	N/A	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	NO
Fluoride (ppm)	2023	4	4	1.05	0.9-1.14	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	NO

Nitrate (ppm)	2023	10	10	0.98	ND-0.98	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	NO
Orthophosphate (ppm)	2023	N/A	N/A	0.98	0.72-1.40	Manufactured for corrosion control	NO
Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation

Turbidity (NTU)	2023	N/A	TT	0.74	0.01-0.74	Soil runoff	NO
Turbidity (% meeting standard)		N/A	TT=95%	99.9%	N/A		
Total Organic Carbon (TOC)	2023	N/A	TT	1.38	1.0-2.0	Naturally present in the environment	NO
Total Microcystins (ppb)	2023	N/A	0.3 AL	0.089	0-0.089	Produced by some naturally occurring cyanobacteria, also known as blue-green algae, which under certain conditions (i.e., high nutrient concentration and light intensity) may produce microcystins.	NO

CITY OF SANDUSKY PUBLIC WATER WORKS TABLE OF DETECTED CONTAMINANTS

Inorganic Contaminants

Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
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Contaminants (Units)	Year	MCLG [MRDLG]	MCL [MRDL]	Average Level Found	Range of Detection	Typical Source of Contaminants	Violation
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Turbidity is the 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 samples analyzed each month and shall not exceed 1 NTU at any time. As reported in the table, the Big Island Water Work's highest recorded turbidity result for 2023 was 0.24 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

CITY OF HURON WATER DIVISION TABLE OF DETECTED CONTAMINANTS

Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Inorganic Contaminants							
Barium (ppm)	2023	2	2	0.017	.017-.017	Erosion of natural deposits	NO
Fluoride (ppm)	2023	4	4	1.30	0.87-1.30	Erosion of natural deposits; Water additive which promotes strong teeth.	NO
Nitrate (ppm)	2023	10	10	1.48	0.10-1.48	Run-off from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	NO
Contaminants (Units)	Year	MCLG	MCL	Level Found	Range of Detection	Typical Source of Contaminants	Violation
Microbiological Contaminants							
Turbidity (NTU)	2023	<0.10	0.30	0.24	.02-.24	Soil runoff; Algae	NO
Turbidity (%meeting standard)	2023	N/A	95%	100%	99.9-100%		
Total Organic Carbon (TOC)	2023	1	TT	1.00	1.0-1.7	Naturally present in the environment	NO
Turbidity is the 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 samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the Huron Filtration Plant's highest recorded turbidity result for 2023 was 0.24 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.							

VILLAGE OF NEW LONDON TABLE OF DETECTED CONTAMINANTS

[illegible]

DEFINITIONS

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or the requirements which a water system must follow.
Cyanobacteria	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.
Cyanotoxin	Toxin produced by cyanobacteria. These toxins include liver toxins, nerve toxins and skin toxins. Also sometimes referred to as "algal toxin."
MCL	Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
MCLG	Maximum Contaminant Level Goal: 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.
MRDL	Maximum Residual Disinfectant Level: 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.
MRDLG	Maximum Residual Disinfectant Level Goal: 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.
Microcystin	Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of cyanotoxin microcystin.
N/A	Not applicable
ND	Not detected
NTU	Nephelometric Turbidity Unit: A measure of the clarity of water.
pCi/l	Picocuries per liter: A common measure of radioactivity.
ppm	Parts per Million are units of measure for concentration of a contaminant. A part per million corresponds to a one second in approximately 11.5 days.
ppb	Parts per Billion are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.
removal ratio	A ratio between the percentage of a substance actually removed and the percentage of the substance required to be removed.
SMCL	Secondary Maximum Contaminant Level: These are guidelines, not enforceable limits. They identify acceptable concentrations of contaminants which cause unpleasant tastes, odors, or colors in the water. SMCL'S are for contaminants that will not cause adverse health effects,
Total Organic Carbon (TOC)	The value reported under "Level Found" for Total Organic Carbon (TOC) is the lowest ratio between 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 (1) indicates a violation of the TOC removal requirements.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
"<"	The "<" symbol: A symbol that means 'less than'. A result of "< 5" means that the lowest level detectable was 5 and the contaminant in that sample was not detected.
90th Percentile	90% of samples are equal to or less than the number in the chart.