



2021 Annual Drinking Water Quality Report

Napoleon Water Treatment
Plant PWS#OH3500811

Introduction:

The Napoleon Water Plant has prepared the following report to provide information to you, the customer, on the quality of your drinking water. Included in this report is general health information, water quality test results, and how to participate in decisions concerning your drinking water and water system contacts. This Report, mandated by the U.S. Environmental Protection Agency and funded by the City of Napoleon, covers all required testing results between January 1 and December 31, 2021.

Community Participation:

You are invited to participate in our public forum and voice your concerns about your drinking water. Napoleon City Council meets the 1st and 3rd Monday each month at the City Building at 7:00 PM. The City building council chambers is located at 255 West Riverview Ave.

License to Operate:

For the year 2021, the Napoleon Water Treatment Plant had a current, unconditioned license to operate our water system.

Where does my water come from?

The Napoleon Water Treatment Plant has an abundant water supply from two sources. The Napoleon Water Plant draws from the Maumee River daily. Our second source is the Wauseon Reservoir. We pump daily, weather permitting to the reservoir. In 2021, Napoleon pumped 392 million gallons of raw water to the Wauseon Reservoir. The flow can be reversed and Napoleon can flow back when there are water quality issues in the river, such as non-point agricultural runoff. Our treatment facility provided roughly 399 million gallons of clean drinking water in 2021. The City of Napoleon public water system uses surface water drawn from an intake on the Maumee River.

Source Water Information:

For the purposes of source water assessments, in Ohio all surface

waters are considered too 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 Napoleon's drinking water source protection area contains potential contaminant sources such as agriculture, septic systems, oil and gas production activities, combined sewer overflows, wastewater treatment discharges, commercial and industrial sources, roadways and railways.

The City of Napoleon'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 the Maumee River. Information that is more detailed is provided in the City of Napoleon's Drinking Water Source Assessment report, which can be obtained by calling the Water Plant Superintendent at 419-592-8811.

Sources of Drinking Water 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;

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plant, 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, 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 at 1-800-426-4791.

Important Health Information:

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 infections. 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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Per- and Polyfluoroalkyl Substances (PFAS)

In 2020, our PWS was sampled as part of the State of Ohio's Drinking Water Per- and Polyfluoroalkyl Substances (PFAS) Sampling Initiative. Six PFAS compounds were sampled, and None were detected in our finished drinking water. For more information about PFAS, please visit pfas.ohio.gov.

Lead:

Lead in Home Plumbing. 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. We are 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 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 www.epa.gov/safewater/lead. Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water.

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 for advice from your health care provider.

Cryptosporidium:

The Napoleon Water Plant continued testing for Cryptosporidium round two in 2021. 1 of 3 samples taken of the raw water detected Cryptosporidium. It was not detected in the finished water. Cryptosporidium is a microbial parasite found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Monitoring of source water and/or finished water indicates the presence of these organisms. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infections include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at a greater risk of developing 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. The City of Napoleon Water Treatment Plant currently has a UV disinfection system and is proud to let our customers know that the current water treatment system that is in operation effectively removes Cryptosporidium detected in the raw surface water as required by the Ohio EPA.

Red Water/ Taste and Odor Issues

From time to time, rust from the inside old iron water mains or from your plumbing may be dislodged by high flow this can lead

to a red color in drinking water. In addition, during certain times of year, taste and odor problems may occur due mainly to algae in the raw water supply. Napoleon Water Treatment Plant is working hard to control and eliminate these problems from our water. If you have questions or concerns about your water, contact the water treatment plant at 419-592-8811

City of Napoleon Notices of Violation

The City of Napoleon Public Water system did not receive any Violations for the year 2021.

Definitions of terms contained within this report:

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

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 Contaminant 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.

MRDL (Maximum Residual Disinfectant Level): The highest-level 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 a 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 of microbial contaminants.*

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.

ppm (parts per million): *One part substance per million parts water (or milligrams per liter).*

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

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

NA: Not applicable.

TC: Total Coliform Bacteria, coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present.

Contact Time (CT): means the mathematical product of a "residual disinfectant concentration" (C), which is determined before or at the first customer, and the

corresponding "disinfectant contact time" (T).

Microcystins: Liver toxins produced by a number of cyanobacteria. Total microcystins are the sum of all the variants/congeners (forms) of the cyanotoxin microcystin.

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".

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.

SAMPLING RESULTS: During the past year, we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table shows only those contaminants that were detected in the water. The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included; along with year in which the sample was taken.

Questions? For information in this report or question regarding your drinking water please, contact Jeff Weis, Water Treatment Plant Superintendent at 419-592-8811.

*** Much of the verbiage here within is mandatory language provided by the Ohio EPA***
Napoleon Water Treatment Plant 527 Welsted St., Napoleon, Ohio 43545; 419-592-8811 Jeff Weis, Water Plant Superintendent

Regulated Substances							
Substance (unit of measure)	Year Sampled	MCL (MRDL)	MCLG (MRDLG)	Amount Detected	Range Low-High	Violation	Typical Source
Microbiological Contaminants							
Turbidity (NTU)	2021	TT	NA	0.15	0.03-0.15	NO	Soil Runoff
Turbidity (Lowest Monthly % of samples meeting limit)	2021	TT	NA	100%	NA	NO	Soil Runoff
Turbidity is a measurement of the cloudiness of water and is an indication of the effectiveness of our filtration system. The turbidity limit set by the EPA is {0.3NTU) in 95% of the daily samples and shall not exceed 1 NTU at any time. As reported above, the highest recorded turbidity was 0.15 and the Lowest Monthly percentage of samples meeting the turbidity limits was 100%							
Total Organic Carbon (TOC) (ppm)	2021	TT	NA	3.01	2.2-3.4	NO	Naturally present in the environment.
The value reported under Amount Detected for 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 indicates that the water system is in compliance with the TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements.							
Microcystin (ppb)	2021	NA	*	0%	0%	NO	Produced by some naturally occurring cyanobacteria (Blue-Green Algae)
* 0.3 AL for children and sensitive populations, 1.6 for children 6 and older as well as adults.							
Inorganic Contaminants							
Fluoride (ppm)	2021	4	4	1.21	0.92 - 1.21	NO	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	2021	10	10	6.56	0.57 – 6.56	NO	Runoff from fertilizer; Leaching from septic tanks sewage; Erosion of natural deposits.
Barium (ppm)	2021	2	2	0.020	0-0.020	NO	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Lead and Copper							
Copper (ppm)	2021	AL= 1.3	1.3	0.030	0 - 0.045	NO	Corrosion of household plumbing systems.
	No Sample sites out of 20 sites sampled were above the AL of 1.3 ppm						
Lead (ppb)	2021	AL= 15	0	<2	0 – 4.7	NO	Corrosion of household plumbing systems.
	No Sample sites out of 20 sites sampled were above the AL of 15 ppb						
Synthetic Organic Contaminants including Pesticides & Herbicides							
Atrazine (ppb)	2021	3	3	1.7	0.083 - 1.7	NO	Runoff from herbicide used on row crops
Residual Disinfectants							
Total Chlorine (ppm)	2021	MRDL= 4	MRDLG= 4	1.75	1.39 - 1.81	NO	Water additive used to control microbes.
Disinfection Byproducts/Volatile Organic Contaminants							
Haloacetic Acids (HAA5) (ppb)	2021	60	NA	15.6	<6.0 – 21.4	NO	By-product of drinking water disinfection
TTHMs (Total Trihalomethanes) (ppb)	2021	80	NA	43.3	12.5 – 61.4	NO	By-product of drinking water disinfection