



2016

Annual Drinking Water Quality Report Napoleon Water Treatment Plant PWS#OH3500811

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. To participate in decisions concerning your drinking water you may attend any regularly scheduled Council meeting. They are held the 1st and 3rd Mondays each month at the City Building at 7:00 PM.. We have a current, unconditioned license to operate our water system. For information in this report or question regarding your drinking water please contact Scott Hoover, Water Treatment Plant Superintendent at 419-592-8811.

The Napoleon Water Treatment Plant has an abundant water supply from 2 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 2016 Napoleon pumped 246.7 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 490.3 million gallons of clean drinking water in 2016.

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 stormwater 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 stormwater 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.

Definitions of terms contained within this report:

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).

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

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.

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 contaminates.

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 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.

IDSE: Initial Distribution System Evaluation

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.

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 contaminates.

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.

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.

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 contaminates. 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.

REGULATED SUBSTANCES	MCLG	M CL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Turbidity (NTU)	NA	TT	0.21	0.04 - 0.21	No	2016	Soil runoff
Turbidity (% samples meeting standard)	NA	TT	100%	NA	No	2016	Soil runoff
Atrazine (ppb)	3	3	0.67	0.00-1.20	No	2016	Runoff from herbicide used on row crops
Simazine	4	4	0.04	0.00-0.06	No	2016	Herbicide runoff
Total Organic Carbon	NA	TT	2.53	2.0-3.1	No	2016	Naturally present in the environment
Fluoride (ppm)	4	4	1.03	0.81 - 1.15	No	2016	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	8.94	0.30-8.94	No	2016	Runoff from fertilizer; leaching from septic tanks, sewage; Erosion of natural deposits
Total Chlorine (ppm)	MRDL= 4	M RD LG =4	1.81	1.35-1.87	No	2016	Water additive used to control microbes
Barium	2	2	0.01	NA	no	2016	Discharge of drilling wastes; Discharge from metal refineries; erosion on natural deposits
Lead (ppb)	0	AL= 15	<5.0	NA	No	2014	Corrosion of household plumbing systems
Zero out of 20 samples were found to have lead levels in excess of the lead action level of 15 ppb.							
Copper (ppm)	1.3	AL= 1.3	<0.05	NA	No	2014	Corrosion of household plumbing systems
Zero out of 20 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.							
Disinfection Byproducts							
	MCLG	M CL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Haloacetic Acids {HAA5}-(ppb) Stage 3 DS201, DS202	NA	60	20.5	19.2-28.2	No	2015 -2016	By-product of drinking water disinfection
Total Trihalomethanes {TTHM}-(ppb) Stage 3 DS201 DS202	NA	80	57.6	27.1-74.1	No	2015 -2016	By-product of drinking water disinfection

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).

The City of Napoleon public water system uses surface water drawn from an intake on the Maumee River. For the purposes 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 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. More detailed information is provided in the City of Napoleon's Drinking Water Source Assessment report, which can be obtained by calling the water plant.

The Napoleon Water Plant did not test for Cryptosporidium in 2016. The plant did install a new UV disinfection System to meet our requirement as mandated by the Ohio EPA. The Napoleon Water Plant will be under construction for the rehabilitation of the plant, with the addition of a new membrane plant in 2017.

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Scott Hoover, Water Plant Superintendent

This Consumer Confidence report (CCR) reflects changes in the 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, 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 contaminate 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.

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.

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 0.14NTU and the monthly percentage of samples meeting the turbidity limits was 100%

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.

The value reported under Amount Detected for TOC is the lowest ratio between percentage of TOC actually removed to the