



**2007
Annual Drinking Water Quality Report
City of Napoleon
Water Treatment Plant**

We're pleased to present to you this year's Annual Water Quality Report. 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 water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is surface water, which is provided by the Maumee River.

The Napoleon Water Treatment Plant is a conventional lime soda-ash softening plant with additional facilities to help cope with the extreme physical and chemical characteristics of the Maumee River.

This report shows our water quality and what it means. If you have any questions about this report or concerning your water utility, please contact Roger L. Noblit, Director of Water & Wastewater at 419-592-8811. 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 Council meetings. They are held on the first and third Mondays of each month at the City Building, at 8:00 PM.

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, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration 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:

Parts per million (ppm) or Milligrams per liter (mg/l) - 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.

The "<" symbol - A symbol which means less than. A result of <5 means that could be detected was 5 and the contaminant in that sample was not detected.

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.

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

Action Level (AL)- 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.

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.

Turbidity is a measure of the cloudiness of the 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 in the table the highest recorded turbidity result was 0.49 NTU and the monthly percentage of samples meeting the turbidity limit was 99.4%.

The EPA requires regular sampling to ensure water safety. The Napoleon Water Plant conducted sampling for bacteria, inorganic, radiological and volatile organic contaminants during 2007. Samples were collected for a total of 61 different contaminants, most of which were not detected in our water supply.

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.

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

Microbiological Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Turbidity (NTU)	NA	TT	0.49	0.04 - 0.49	No	2007	Soil runoff
Turbidity (% samples meeting standard)	NA	TT	99.4%	NA	No	2007	Soil runoff
Total Coliform Bacteria	0	1 per month	0	NA	No	2007	Naturally present in the environment
E. Coli	0	*	0	NA	No	2007	Human and animal fecal waste
Total Organic Carbon	NA	TT	2	2.0 - 2.6	No	2007	Naturally present in the environment
Inorganic Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Barium (ppm)	2	2	0.011	NA	No	2007	Discharge from petroleum refineries; fire retardants; ceramics; solder
Fluoride (ppm)	4	4	1.02	0.80 - 1.16	No	2007	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Lead (ppb)	0	AL=15	<5.0	NA	No	2005	Corrosion of household plumbing system.
Zero out of 20 samples was found to have lead levels in excess of the lead action level of 15ppb.							
Copper (ppm)	1.3	AL=1.3	<0.05	NA	No	2005	Corrosion of household plumbing systems.
Zero out of 20 samples was found to have copper levels in excess of the copper action level of 1.3 ppm.							
Nitrate (ppm)	10	10	9	0.25 - 9.0	No	2007	Runoff from fertilizer; Erosion of natural deposits
Residual Disinfectants	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Total Chlorine (ppm)	MRDL=4	MRDLG=4	1.7	0.40 - 2.5	No	2007	Water additive used to control microbes
Volatile Organic Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Bromodichloromethane (ppb)	NA	NA	8.8	NA	No	2007	By-product of drinking water chlorination
Chloroform (ppb)	NA	NA	16	NA	No	2007	By-product of drinking water chlorination
Dibromochloromethane (ppb)	NA	NA	3.5	NA	No	2007	By-product of drinking water chlorination
Total Trihalomethanes (ppb)	0	80	79	31 - 151	Yes	2007	By-product of drinking water chlorination
Haloacetic Acids (ppb)	NA	60	28	14 - 36	No	2007	By-product of drinking water chlorination
Synthetic Organic Contaminants - Pesticides & Herbicides	MCLG	MCL	Level Found	Range of Detections	Violation	Year Sampled	Typical Source of Contaminants
Atrazine (ppb)	3	3	1.05	<0.30 - 3.1	No	2007	Runoff from herbicide used on row crops

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).

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.

removed. A value greater than (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than (1) indicates a violation of the TOC removal requirements.

*MCL: a routine sample and a repeat sample are total coliform positive and one is also E. Coli positive.

Some people who drink water containing Trihalomethanes in excess of the MCL over many years may experience problems with the liver, kidneys, or central nervous systems, and may

have an increased risk of getting cancer. Presently the Water Treatment Plant is investigating treatment options so compliance is achieved as regulations change.

To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-million chance of having the described health effect.

Some people may be more vulnerable to contaminants in drinking water than the general population.

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