

## **Northwestern Water & Sewer District – Toledo Service Area Drinking Water Consumer Confidence Report For 2015**

In 2015 Northwestern Water & Sewer District – Toledo Service Area had an unconditioned license to operate our water system. *This institution is an equal opportunity provider.*

Together, the City of Toledo and the Northwestern Water & Sewer District – Toledo Service Area have prepared the following report to provide information to you, the consumer, on the quality of our drinking water. Included within this report is general health information, water quality test results, how to participate in decisions concerning your drinking water and water system contacts.

### **Source Water Information**

The City of Toledo uses surface water drawn from an intake located in Lake Erie. The raw water is then transported to the Water Treatment Plant. Continual monitoring of the chemical feeders and raw water by the plant's operators ensures optimal treatment of the water. Lime and caustic soda for softening, alum for coagulation, carbon dioxide for neutralizing excess lime in solution and chlorine for disinfection are the primary parts of treatment.

### **What are sources of contamination to drinking water?**

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 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 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 Federal 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. 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 (1-800-426-4791).

### **About your drinking water.**

The EPA requires regular sampling to ensure drinking water safety. The Northwestern Water & Sewer District – Toledo Service Area conducted sampling for bacteria, disinfection byproducts, lead and copper during 2015. Samples were collected for a total of 15 different contaminants most of which were not detected in the Northwestern Water & Sewer District – Toledo Service Area water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

The EPA requires regular sampling to ensure drinking water safety. The City of Toledo conducted sampling for bacteria; inorganic; radiologicals; synthetic organic; and volatile organics during 2015. Samples were collected for a total of 56 different contaminants most of which were not detected in the City of Toledo water supply. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

Listed below is information on those contaminants that were found in the Northwestern Water & Sewer District – Toledo Service Area drinking water.

**TABLE OF DETECTED CONTAMINANTS: Northwestern Water & Sewer District – Toledo Service Area**

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Inorganic Contaminants</b>							
Lead (ppb)	0	AL=15	90 <sup>th</sup> Percentile 0.0052	NA	NO	2015	Corrosion of household plumbing systems.
	Two out of 30 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	0	AL=1.3	90 <sup>th</sup> Percentile 0.022	NA	NO	2015	Corrosion of household plumbing systems.
	Zero out of 30 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						
<b>Residual Disinfectants</b>							
Total Chlorine (ppm)	MRDL=4	MRDLG=4	0.96	0.71 – 1.03	NO	2015	Water additive used to control microbes.

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Disinfection Byproducts</b>							
Total Trihalomethanes TTHMs (ppb)	0	80	68.8	20.1 – 116	NO	2015	By-product of drinking water chlorination.
Haloacetic Acids HAA5 (ppb)	0	60	19	5.3 – 33.2	NO	2015	By-product of drinking water chlorination.

#### TABLE OF DETECTED CONTAMINANTS: City of Toledo

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Microbiological Contaminants</b>							
Turbidity (NTU)	NA	TT	0.24	0.04 – 0.24	NO	2015	Soil runoff.
Turbidity (% meeting standard)	NA	TT	100%	100%	NO	2015	
Total Organic Carbon	NA	TT	3.02	2.58 – 3.87	NO	2015	Naturally present in the environment.
<b>Inorganic Contaminants</b>							
Barium (ppm)	2	2	0.010	NA	NO	2015	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Chlorite (ppm)	0.8	1.0	0.371	0.053 – 0.5	NO	2015	By-product of drinking water chlorination.
Chromium (ppb)	100	100	0.24	0.20 – 0.24	NO	2013	Discharge from steel and pulp mills; Erosion of natural deposits.
Fluoride (ppm)	4	4	1.05	0.82 – 1.17	NO	2015	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm)	10	10	3.12	ND – 3.12	NO	2015	Runoff from fertilizer use; leaching from septic tanks, sewage; Erosion of natural deposits.
<b>Synthetic Organic Contaminants</b>							
Atrazine (ppb)	3	3	0.089	ND – 0.089	NO	2015	Runoff from herbicide used on row crops.
Simazine (ppb)	4	4	0.060	ND – 0.060	NO	2015	
<b>Radioactive Contaminants</b>							
Alpha emitters (pCi/l)	0	15	8	NA	NO	2015	Erosion of natural deposits.

**TABLE OF DETECTED CONTAMINANTS: City of Toledo**

Contaminants (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminants
<b>Unregulated Contaminants</b>							
Chlorate (ppb)	NA	NA	100	39.6 – 100	NO	2013	Presently, there are no MCL or Action Levels for these contaminants. Unregulated contaminants monitoring helps EPA to determine where certain contaminants occur and whether it needs to regulate those contaminants.
Chromium Hexavalent (ppb)	NA	NA	0.232	0.19 – 0.232	NO	2013	
Molybdenum (ppb)	NA	NA	2.11	ND – 2.11	NO	2013	
Sodium (ppm)	NA	NA	32.4	6.8 – 32.4	NO	2015	
Strontium (ppb)	NA	NA	151	86 – 151	NO	2013	
Vanadium (ppb)	NA	NA	0.850	0.423 – 0.85	NO	2013	
<b>Microcystin</b>							
Microcystin (ppb)	0.3 Children under 6 years		ND	NA	NO	2015	Toxins produced by harmful algal blooms.
	1.6 Anyone 6 or older						

**Turbidity**

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 daily samples and shall not exceed 5 NTU at any time. As reported above, the City of Toledo’s highest recorded turbidity result for 2015 was 0.24 NTU and lowest monthly percentage of samples meeting the turbidity limits was 100%.

**Violations**

The City of Toledo Water Treatment failed to provide adequate contact time for approximately 7 hours on March 18, 2015. This resulted in a disinfection violation. Inadequately treated water may contain disease causing organisms. These organisms include bacteria, viruses and parasites that can cause symptoms such as nausea, cramps, diarrhea and associated headaches. The City of Toledo has taken the following step to correct the problem; the addition of chlorine feed application points at the clear well and will ensure continuous chlorine fee.

**Lead Educational Information**

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. Northwestern Water & Sewer District – Toledo Service Area 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 800-426-4791 or at <http://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. Additional information is available from the Safe Drinking Water Hotline (1-800-426-4791).

### **Radon**

The City of Toledo monitored for radon in the finished water during 2015. One sample was collected and the radon level was 8 pCi/L. Radon is a radioactive gas that occurs naturally in some ground water. It may pose a health risk when the gas is released from water into air, as occurs during showering, bathing, or washing dishes and clothes. Radon gas released from drinking water is a relatively small part of the total radon in air. Major sources of radon gas are soil and cigarettes. Inhalation of radon gas has been linked to lung cancer; however, the effects of radon ingested in drinking water are not yet clear. If you are concerned about radon in your home, tests are available to determine the total exposure level. For additional information on how to have your home tested, call 1-800-SOS RADON.

### **How do I participate in decisions concerning my drinking water?**

Public participation and comment are encouraged at regular meetings of the Board of Trustees which meets at 7:30 am every 2<sup>nd</sup> and 4<sup>th</sup> Thursday of each month. Meetings are held at the District's Operations facility located at 12560 Middleton Pike, Bowling Green, OH 43402. For more information on your drinking water contact Customer Service at 419-354-9090.

### **Definitions**

*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.

*Parts per Billion (ppb) or Micrograms per Liter (µg/L)* are units of measure for concentration of a contaminant. A part per billion corresponds to one second in 31.7 years.

*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 or other requirements which a water system must follow.

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

*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.

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