

## **Northwestern Water & Sewer District – Toledo Service Area Drinking Water Consumer Confidence Report For 2018**

In 2018 we had an unconditioned license to operate our water system. 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 Water Treatment Plant uses surface water from Lake Erie as its source water. The two story water intake was constructed in 1942. It is located less than a mile away from the intake for the City of Oregon’s public water system, and farther from shore. Both intakes are located beyond the normal flow of the Maumee River as well as that of the Detroit River to the north.

The integrity of the Toledo intake structure is inspected in the spring of each year. The present water treatment plant has a capacity of 181 million gallons per day based on 4gpm/sf filtration loading rate. The average daily production is 80 million gallons per day (winter) and 140 million gallons per day (summer). The system has 70 million gallons of finished water storage at the plant and 10.5 million gallons of ground storage in the distribution system. The Toledo water line is a 108-inch diameter pipe that runs parallel with the City of Oregon’s water line, but extends farther out into the lake. Processes include lime softening, sedimentation, filtration, fluoridation, coagulation, flocculation, stabilization and disinfection prior to distribution.

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 the source to the intake. Based on the information compiled for this assessment, the Toledo Public Water System CAZ is susceptible to contamination from accidental spills or releases associated with commercial shipping and recreational boating, sediments from river dredging disposal operations, air contaminant deposition, point and nonpoint source discharges from industrial and agricultural operations along the shore and along streams that empty into the lake, contamination from oil and gas production and mining operations, natural processes such as erosion, contaminated storm water runoff from urban areas, municipal sewage treatment system and home sewage disposal system discharges, and combined sewer overflows (CSOs).

It is important to note that this assessment is based on available data, and therefore may not reflect current conditions in all cases. Water quality, land uses and other activities that are potential sources of contamination may change with time. While the source water for the City of Toledo public water system is considered susceptible to contamination, historically, the City of Toledo has effectively treated this source water to meet drinking water standards.

The source water assessment report prepared for the City of Toledo can be accessed at Ohio EPA’s website. Utilizing the Interactive Web Map located at <http://epa.ohio.gov/ddagw/swap.aspx> and selecting “Source Water Protection Areas” under the “Quick Links”. When the map appears, you can search by water system name or by the 7-digit PWS ID number which is OH4801411 for the City of Toledo.

The City of Toledo also has an emergency connection with the City of Oregon. During 2018 we used no water from this connection over the entire year. On average, this connection is used for approximately 0 days each

year. This report does not contain information on the water quality received from the City of Oregon but a copy of their consumer confidence report can be obtained by contacting them at 419-698-7123.

### **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 2018. 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 City of Toledo conducted sampling for bacteria; inorganic; radiological; synthetic organic; and volatile organics during 2018. Samples were collected for a total of 80 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 and the City of Toledo 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>Disinfectant and Disinfectant By-Products</b>							
Total Chlorine (ppm)	MRDL = 4	MRL = 4	1.16	0.83 - 1.72	No	2018	Water additive used to control microbes
Haloacetic Acids (HAA5) (ppb)	NA	60	16.13	7.5 - 33	No	2018	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) (ppb)	NA	80	72.5	47.7 - 88.8	No	2018	By-product of drinking water disinfection
<b>Lead and Copper</b>							
Contaminants (units)	Action Level (AL)	Individual Results over the AL	90% of test levels were less than	Violation	Year Sampled	Typical source of Contaminants	
Lead (ppb)	15 ppb	3	7.2 ppb	No	2018	Corosion of household plumbing systems; erosion of natural deposits	
	2 out of 31 samples were found to have lead levels at 15 ppb and 1 out of 31 samples were found to have lead levels in excess of the lead action level of 15 ppb.						
Copper (ppm)	1.3 ppm	0	0.0137 ppm	No	2018	Erosions of natural deposits; leaching from wood preservatives; Corrosions of household plumbing systems	
	0 out of 31 samples were found to have copper levels in excess of the copper action level of 1.3 ppm.						

**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	0.39	0.02 - 0.39	No	2018	Soil runoff.
Turbidity (% meeting standard)	NA	TT	99%	0 - 100%	No	2018	
Total Organic Carbon	NA	TT	3.1	3.1 - 3.86	No	2018	Naturally present in the environment.
<b>Inorganic Contaminants</b>							
Chlorite (ppm)	0.5	1	0.15	0.05 - 0.59	No	2018	By-product of drinking water chlorination.
Fluoride (ppm)	4	4	1.05	0.88 - 1.18	No	2018	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate (ppm)	10	10	4.35	<0.2 - 4.35	No	2018	Run off from fertilizer use, Leaching from septic tanks, sewage; Erosion of natural deposits

Radioactive Contaminants							
Alpha emitters (pCi/l)	NA	15	<3	NA	No	2018	Erosion of natural deposits.
Radium (pCi/l)	NA	5	<1	NA	No	2018	
Microcystin							
Microcystin (ppb)	0.3 Children under 6 years		ND	NA	No	2018	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 samples analyzed each month and shall not exceed 1 NTU at any time. As reported above, the City of Toledo's highest recorded turbidity result for 2018 was 0.39 NTU and lowest monthly percentage of samples meeting the turbidity limits was 99.4%.

### **What is the Unregulated Contaminant Monitoring Rule?**

The 1996 amendments to the Safe Drinking Water Act (SDWA) require that once every five years, the US Environmental Protection Agency (EPA) issue a new list of no more than 30 unregulated contaminants to be monitored by public water systems (PWSs). The Unregulated Contaminant Monitoring Rule (UCMR) provides EPA and other interested parties with scientifically valid data on the occurrence of contaminants in drinking water. This national survey is one of the primary sources of information on occurrence and levels of exposure that the Agency uses to develop regulatory decisions for contaminants in the public drinking water supply.

The "Revisions to the Unregulated Contaminant Monitoring Rule (UCMR 4) for Public Water Systems and Announcement of Public Meeting" was published in the Federal Register on December 20, 2016 (81 FR 92666). UCMR 4 monitoring will occur from 2018-2020 and includes monitoring for a total of 30 chemical contaminants: 10 cyanotoxins (nine cyanotoxins and one cyanotoxin group) and 20 additional contaminants (two metals, eight pesticides plus one pesticide manufacturing byproduct, three brominated haloacetic acid [HAA] disinfection byproducts groups, three alcohols, and three semivolatile organic chemicals [SVOCs]).

Unregulated Contaminants					
Contaminants (Units)	Sample Year	Average Level Found	Range of Detections	Sample Location	Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. In 2018 the City of Toledo participated in the fourth round of the Unregulated Contaminant Monitoring Rule (UCMR 4). For a copy of the results please call the City of Toledo Water Treatment Plant at 419-936-3021.
Manganese (ppb)	2018	0.478	<0.4 - 0.777	Distribution	
Haloacetic Acids (HAA5) (ppb)	2018	12.9	5.26 - 17.54	Distribution	
Haloacetic Acids (HAA6Br) (ppb)	2018	11.22	1.72 - 14.37	Distribution	
Haloacetic Acids (HAA9) (ppb)	2018	20.81	9.4 - 26.47	Distribution	
Sodium (ppm)	2018	38.6	10.6 - 38.6	Source Water	

### **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).

### **Cryptosporidium Information.**

The City of Toledo Water Department has completed the second round of source water monitoring required by the Long Term 2 Enhanced Surface Water Treatment Rule. Forty-eight (48) samples were collected and tested for Giardia and Cryptosporidium. Only one cell of Cryptosporidium was detected during the testing period from April 2015 to March 2018. In 2005, 21 samples were taken from Toledo's raw water supply. Cryptosporidium was not detected in any of these samples. Cryptosporidium is a microbial pathogen found in surface water throughout the U.S. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. Monitoring of source water indicates the presence of these organisms. Current test methods do not enable us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immune compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease and it may be spread through means other than drinking water.

### **Revised Total Coliform Rule (RTCR) Information**

All water systems were required to begin compliance with a new rule, the Revised Total Coliform Rule, on 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 contaminant 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.

### **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 2nd and 4th 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.

Additionally, public participation and comment are encouraged at regular meetings of City Council which meets every other Tuesday at 4 pm at One Government Center. Please visit [www.toledo.oh.gov/government/city-council](http://www.toledo.oh.gov/government/city-council) for access to calendars, council and committee notices, pending and enacted legislation as well as audio minutes or call 419-245-1050. For more information on your drinking water contact Jeff Calmes, Operations Administrator 419-936-3021 or [jeff.calmes@toledo.oh.gov](mailto:jeff.calmes@toledo.oh.gov).

### **Definitions of some terms contained within this report.**

- **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.
- **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.
- **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.
- **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.
- **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”.
- **Level 1 Assessment** is a study of the water system to identify the potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
- **Level 2 Assessment** is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.
- **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.
- **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.

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