

Annual Drinking Water Quality Report 2017

Toledo Municipal Water System

We're pleased to present to you this year's Annual Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. 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 well water drawn from the Newaukum Terrace Aquifer.

We have a Wellhead Protection Plan available in our office that provides more information such as potential sources of contamination.

I'm pleased to report that our drinking water is safe and meets federal and state requirements.

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 Steven Blahut at 864-4564. 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 1st and 3rd Monday of each month at 6:00 p.m. in the City Council Chambers at the Toledo City Hall.

Toledo Municipal Water System routinely monitors for constituents in your drinking water according to Federal and State laws. This table shows the results of our monitoring for the period of January 1st 2016 to December 31st, 2016. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some constituents. It's important to remember that the presence of these constituents does not necessarily pose a health risk.

In this table you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

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.

Parts per trillion (ppt) or Nanograms per liter (nanograms/l) - one part per trillion corresponds to one minute in 2,000,000 years, or a single penny in \$10,000,000,000.

Parts per quadrillion (ppq) or Picograms per liter (picograms/l) - one part per quadrillion corresponds to one minute in 2,000,000,000 years or one penny in \$10,000,000,000,000.

Picocuries per liter (pCi/L) - picocuries per liter is a measure of the radioactivity in water.

Millirems per year (mrem/yr) - measure of radiation absorbed by the body.

Million Fibers per Liter (MFL) - million fibers per liter is a measure of the presence of asbestos fibers that are longer than 10 micrometers.

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.

Variances & Exemptions (V&E) - State or EPA permission not to meet an MCL or a treatment technique under certain conditions.

Action Level - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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

Maximum Contaminant Level - (mandatory language) The "Maximum Allowed" (MCL) is the highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the 2MCLGs as feasible using the best available treatment technology.

Maximum Contaminant Level Goal - (mandatory language) 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.

SO1 and SO2 - Source 1 (Well #1) and Source 2 (Well #2).

Non-Detects (ND) - laboratory analysis indicates that the constituent is not present.

AL (Federal Action Levels): are .015 ppm for Lead and 1.3 ppm for Copper.

TEST RESULTS						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Microbiological Contaminants						
Total Coliform Bacteria	No	No	MPN	0	presence of coliform bacteria in 5% of monthly samples	Naturally present in the environment
Inorganic Contaminants						
Nitrates (as Nitrogen)	No	1.43	ppm	<10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SO1	No	1.47				
Disinfection By Products						
TTHM	No	ND	ppb		80	By products as part of the Chlorination Process
Out of end of line in distribution System	No	ND			60	
HAA5						
IOC's						
Antimony	No	<0.001	Mg/l		0.006	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
SO1	No	<0.001	Mg/l		0.006	
Arsenic	No	<0.001	Mg/l		0.01	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
SO1	No	<0.001	Mg/l		0.01	
Barium	No	<0.005	Mg/l		2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
SO1	No	<0.005	Mg/l		2	
Beryllium	No	<0.003	Mg/l		0.004	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
SO1	No	<0.0002	Mg/l		0.004	
Cadmium	No	<0.001	Mg/l		0.005	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
SO1	No	<0.001	Mg/l		0.005	
Chloride	No	4.49	Mg/l		250	Erosion of natural deposits, salt water
SO1	No	3.49	Mg/l		250	
Chromium	No	<0.001	Mg/l		0.1	Discharge from steel and pulp mills; erosion of natural deposits
SO1	No	<0.001	Mg/l		0.1	
Color	No	<5.0	Color units		15	Natural occurrence
SO1	No	<5.0	Color units		15	
Conductivity	No	195	Umhos/cm		700	
SO1	No	1.74	Umhos/cm		700	
Copper	No	<0.01	Mg/l		-	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
SO1	No	<0.01	Mg/l		-	

Cyanide							
SO1	No	<0.01	Mg/l		0.2		Discharge from steel/metal factories; discharge from plastic and fertilizer factories
SO2	No	<0.01	Mg/l		0.2		
Fluoride							Erosion of deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
SO1	No	<0.2	Mg/l		4		
SO2	No	<0.2	Mg/l		4		
Hardness							Natural occurrence
SO1	No	68.9	Mg/l		-		
SO2	No	58.9	Mg/l		-		
Iron							Erosion of natural deposits; discharge from metal refineries
SO1	No	<0.02	Mg/l		0.3		
SO2	No	<0.002	Mg/l		0.3		
Lead							Corrosion of household plumbing systems, erosion of natural deposits
SO1	No	<0.001	Mg/l		-		
SO2	No	<0.001	Mg/l		-		
Manganese							Erosion of natural deposits; discharge from refineries and factories
SO1	No	<0.005	Mg/l		0.5		
SO2	No	<0.005	Mg/l		0.5		
Mercury (inorganic)							Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
SO1	No	<0.0002	Mg/l		0.002		
SO2	No	<0.0002	Mg/l		0.002		
Nickel							Erosion of natural deposits; discharge from refineries and factories
SO1	No	<0.001	Mg/l		-		
SO2	No	<0.001	Mg/l		-		
Nitrate (as Nitrogen)							Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SO1	No	1.43	Mg/l		10		
SO2	No	1.51	Mg/l		10		
Nitrite (as Nitrogen)							Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SO1	No	<0.1	Mg/l		1		
SO2	No	<0.05	Mg/l		1		
Total Nitrate/Nitrite							
SO1	No	1.43	Mg/l		10		
SO2	No	1.51	Mg/l		10		
Total Dissolved Solids							
SO1	No	122	Mg/l		500		
SO2	No	114	Mg/l		500		
Selenium							Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
SO1	No	<0.001	Mg/l		0.05		
SO2	No	<0.001	Mg/l		0.05		
Silver							Erosion of natural deposits; discharge from refineries and factories
SO1	No	<0.001	Mg/l		0.1		
SO2	No	<0.001	Mg/l		0.1		
Sodium							Erosion of natural deposits
SO1	No	11.1	Mg/l		-		
SO2	No	8.0	Mg/l		-		
Sulfate							Erosion of natural deposits, runoff from fertilizer use
SO1	No	1.28	Mg/l		No		
SO2	No	0.77	Mg/l		No		
Thallium							Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
SO1	No	<0.001	Mg/l		0.002		
SO2	No	<0.001	Mg/l		0.002		

Turbidity						Erosion of natural deposits
SO1	No	<0.20	NTU		-	
SO2	No	<0.30	NTU		-	
Zinc						
SO1	No	<0.01	Mg/l		5	Discharge from refineries and factories
SO2	No	<0.01	Mg/l		5	
Herbicides						
SO1						Runoff from Herbicides Applied to land
2,4-D	No	ND	Ug/l		70	
2,4,5-TP (silvex)	No	ND			50	
Pentachlorophenol	No	ND			1	
Dalapon	No	ND			200	
Dinoseb	No	ND			7	
Picloram	No	ND			500	
SO2						
2,4-D	No	ND			70	
2,4,5-TP (silvex)	No	ND			50	
Pentachlorophenol	No	ND			1	
Dalapon	No	ND			200	
Dinoseb	No	ND			7	
Picloram	No	ND			500	
VOC						
Benzene						
SO1	No	ND	ppb	0	5	Discharge from factories; leaching from gas storage tanks and landfills
SO2	No	ND				
Carbon tetrachloride						
SO1	No	ND	ppb	0	5	Discharge from chemical plants and other industrial activities
SO2	No	ND				
Chlorobenzene						
SO1	No	ND	ppb	0	100	Discharge from industrial chemical factories
SO2	No	ND				Discharge from industrial chemical factories
p-Dichlorobenzene						
SO1	No	ND	ppb	75	75	
SO2	No	ND				
1,2 – Dichloroethane						
SO1	No	ND	ppb	0	5	Discharge from industrial chemical factories
SO2	No	ND				
1,1 – Dichloroethylene						
SO1	No	ND	ppb	7	7	Discharge from industrial chemical factories
SO2	No	ND				
cis-1,2-ichloroethylene						
SO1	No	ND	ppb	70	70	Discharge from industrial chemical factories
SO2	No	ND				
trans - 1,2 -Dichloroethylene						
SO1			ppb	100	100	Discharge from industrial chemical factories
SO2	No	ND				
Dichloromethane		N/A	ppb	0	5	Discharge from pharmaceutical and chemical factories

1,2-Dichloropropane SO1 SO2	No No	ND ND	ppb	0	5	Discharge from industrial chemical factories
Ethylbenzene SO1 SO2	No No	ND ND	ppb	700	700	Discharge from petroleum refineries
Styrene SO1 SO2	No No	ND ND	ppb	100	100	Discharge from rubber and plastic factories; leaching from landfills
Tetrachloroethylene SO1 SO2	No No	ND ND	ppb	0	5	Leaching from PVC pipes; discharge from factories and dry cleaners
1,2,4 –Trichlorobenzene SO1 SO2	No No	ND ND	ppb	70	70	Discharge from textile-finishing factories
1,1,1 – Trichloroethane SO1 SO2	No No	ND ND	ppb	200	200	Discharge from metal degreasing sites and other factories
1,1,2 –Trichloroethane SO1 SO2	No No	ND ND	ppb	3	5	Discharge from industrial chemical factories
Trichloroethylene SO1 SO2	No No	ND ND	ppb	0	5	Discharge from metal degreasing sites and other factories
Toluene SO1 SO2	No No	ND ND	ppb	0	1000	Discharge from industrial chemical factories
Vinyl Chloride SO1 SO2	No No	ND ND	ppb	0	2	Leaching from PVC piping; discharge from plastics factories
Xylenes SO1 SO2	No No	ND ND	ppm	10	10	Discharge from petroleum factories; discharge from chemical factories

As you can see by the table above, **“our system”** had no violations of EPA regulated chemical levels. We are proud that your drinking water meets or exceeds all Federal and State requirements. We have learned through our monitoring and testing that some constituents have been detected. The EPA has determined that your water IS SAFE at these levels.

All 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 the 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.

MCL’s are set at very stringent levels. To understand the possible health effects described for many regulated constituents, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

Total Coliform: The Total Coliform Rule requires water systems to meet a stricter limit for coliform bacteria. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public by newspaper, television or radio. To comply with the stricter regulation, we have increased the average amount of chlorine in the distribution system.

Nitrates: As a precaution we always notify physicians and health care providers in this area if there is ever a higher than normal level of nitrates in the water supply.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary in order to address these improvements.

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).

Our mission is to provide and serve the citizens of Toledo with the highest quality water product attainable. Please call our office if you have any comments or questions.