



CITY OF TOLEDO

Drinking Water Quality Report for 2007



Toledo: an International Award Winning City!

Dear Fellow Citizens,

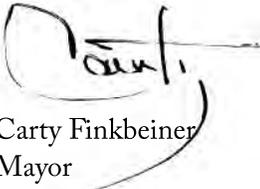
As the provider of one of the five best drinking waters in the United States, the City of Toledo is proud to provide you with this Water Quality Report for 2007.

This annual Water Quality Report describes the quality of drinking water we supplied to you in 2007. Included are details concerning the source of your drinking water, what it contains, and how it compares to federal and state standards. Staff at the Collins Park Water Treatment Plant work 24-hours a day, 7 days a week to produce drinking water, and I am pleased to report that we are meeting or exceeding those standards.

We are pleased to provide this high quality water for your family, employers, and businesses. The water provided by the staff at the Toledo Water Division contributes to the high quality of life that every water customer expects and deserves.



From Toledo - an International Award Winning City!


Carty Finkbeiner
Mayor



International Award for Liveable Communities
Most Business Friendly City in North America
Top 5 Best Tasting Drinking Water in America
Top 10 City of the Future in North America
100 Best Communities for Young People

Where Does Your Drinking Water Come From?

The State has completed a Source Water Assessment for the City of Toledo, which uses surface water drawn from Lake Erie. By their nature, all surface waters are considered to be susceptible to contamination from chemicals and pathogens. The time it would take for a contaminant to travel from our source water to our drinking water intake is relatively short. Although the water system's main intake is located offshore, its proximity to the following increases the susceptibility of the source water to contamination:



- municipal sewage treatment plants
- industrial wastewater
- combined sewer overflows
- septic system discharges
- open water dredge disposal operations
- runoff from agricultural and urban areas
- oil and gas production
- mining operations
- accidental releases and spills, especially from commercial shipping operations and recreational boating

The City of Toledo treats its water to meet and even surpass drinking water quality standards, but no single treatment protocol can address all potential contaminants. The potential for water quality impacts can be further decreased by implementing measures to protect Lake Erie. More detailed information is provided in the City of Toledo's Drinking Water Source Assessment Report, which can be obtained by calling 419-936-3021.

Information about Cryptosporidium

In 2005, 21 samples were taken from Toledo's raw water supply. Cryptosporidium was not detected in any of these samples.

2007 System-Wide Improvements

The City of Toledo's Water Plant has an outstanding record of success, consistently maintaining 100% compliance with drinking water quality regulations. Our outstanding performance in 2007 was achieved through a proactive commitment by our staff to produce a higher level of drinking water safety and reliability than is currently required by law. Over 454,000 customers in the greater Toledo area benefit from the City's proactive approach to drinking water quality.

Many water system improvements and achievements were made in 2007 to keep our water system functioning at peak performance levels and to maximize service reliability and value:

- The U.S. Conference of Mayors held the 2007 City Water Taste Test at its headquarters in Washington, D.C. From a group of 93, five cities were selected for their achievement in providing great tasting, quality water to America's citizens. The finalist cities were Anaheim, CA; Colorado Springs, CO; Long Beach, CA; St. Louis, MO and Toledo, OH. The five finalist cities received awards at the annual meeting of The U.S. Conference of Mayors held in Los Angeles, CA.
- The United States EPA has established a very intensive, extensive, and expensive testing and sampling requirement called the "Long Term 2 Enhanced Surface Water Treatment Rule". Due to the excellence of our facility and our outstanding performance through the years (historical data was submitted), in March 2006, the City of Toledo Division of Water Treatment requested to be "Grandfathered" and not subjected to this new rule, which was approved by the USEPA in March 2007.
- In December 2007, the Collins Park Water Treatment Plant was shutdown for approximately 10-12 hours with no disruption in service, to perform an inspection of the 108" raw water intake conduit. A Remotely Operated Vehicle (ROV) performed the inspection, which was the first inspection of the intake line since it was constructed in 1941.
- Began the \$485,200.00 project to replace the four 30-year-old lime slakers (plus a spare). Water Plant personnel performed the installation of the first slaker in December 2007, with the project being completed in 2008.
- Began projects to remodel one laboratory, replace existing carbon dioxide tanks with new larger tanks, and construct an on-shore potassium permanganate chemical feed facility.
- All required testing done with no regulatory or reporting violations.
- Supplied 29.5 billion gallons of water to our customers.

If you have questions about your drinking water or the contents of this report, please call Jim Dillon at 419-936-3021.

How Do I Participate in Decisions Concerning My Drinking Water?

Toledo's City Council meets every other Tuesday at 4 pm at City Hall.

El informe contiene informacion importate sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.



Newly installed lime slaker is capable of producing 4,000 pounds of slaked lime per hour to soften the water.



A Water Treatment Chemist/Bacteriologist performs one of many tests mandated by State and Federal Law.



This Remotely Operated Vehicle (ROV) was used to perform an underwater inspection of the 108-inch intake line.



2007 U.S. Conference of Mayors Water Taste Test Award presented to the City of Toledo, Division of Water Treatment.

Annual Improvements

Health and Safety Information

The following is mandatory language provided by the EPA. The City of Toledo's drinking water meets or surpasses all Federal and State laws.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline, 800.426.4791.

The sources of both tap and bottled drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive materials, and can also pick up substances resulting from animal or human activity. Contaminants that may be present in source water include:

- *Microbial contaminants*, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- *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.
- *Pesticides and herbicides*, which may come from a variety of sources such as agriculture and residential uses.
- *Organic chemical contaminants*, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, septic systems, and agricultural and urban runoff.
- *Radioactive contaminants*, which are naturally occurring or the result of oil and gas production, or mining activities.

To ensure that tap water is safe, the EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) establishes limits for contaminants in bottled water, which must provide the same protection for public health.

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 those undergoing chemotherapy, who have undergone organ transplants, with HIV/AIDS or other immune system disorders, and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

Federal guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other micro-biological contaminants are available from the EPA's Safe Drinking Water Hotline at 800.426.4791.



Water Quality Terminology

Parts per million (ppm) and parts per billion (ppb) - One ppm can be equated to 4 teaspoons of salt in a standard 24-foot backyard pool. One ppb is like 1 teaspoon of salt in an Olympic-sized pool.

Maximum Contaminant Level (MCL) - The 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. MCLs are set at very stringent levels by State and Federal governments.

Maximum Contaminant Level Goal (MCLG) - The 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 (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.

Nephelometric Turbidity Unit (ntu) - A measure of water clarity.

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 the drinking water.

nd - Not detectable.

na - Not applicable.

The "<" symbol means less than.

2007 Water Quality Results

The table below shows the results of the Toledo Water Treatment Plant's water quality tests for 2007. The EPA requires regular sampling to ensure drinking water safety. Samples were collected for dozens of different contaminants, most of which were not detected in Toledo's water supply. Those that were detected are included in the table below. There were no violations and our water was in compliance with all State and Federal water quality standards. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not frequently change.

REGULATED CONTAMINANTS

Inorganic Parameters

Parameter	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation?	Likely Sources
Chlorite ¹	2007	ppm	0.381	0.03 - 0.381	0.8	1.0	no	Byproduct of drinking water disinfection
Fluoride	2007	ppm	1.08	0.68 - 1.08	4	4	no	Water additive to promote strong teeth
Nitrate	2007	ppm	2.80	<0.20 - 2.80	10	10	no	Fertilizer runoff; septic tank leaching, sewage; erosion of natural deposits

Synthetic Organic Parameters, including pesticides and herbicides

Atrazine	2007	ppb	0.64	<0.30 - 0.64	3	3	no	Runoff from herbicide used on row crops
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Volatile Organic Parameters

TTHM ²	2007	ppb	37.0	15.7 - 51.9	0	80	no	Byproducts of drinking water disinfection
HAA5 ³	2007	ppb	11.6	3.8 - 24.4	none	60	no	Byproducts of drinking water disinfection

Initial Distribution System Evaluation Monitoring⁴

TTHM ⁴	2007	ppb	72.3	14.3 - 72.3	0	80	no	Byproducts of drinking water disinfection
HAA5 ⁴	2007	ppb	10.4	5.0 - 10.4	none	60	no	Byproducts of drinking water disinfection

Microbiological Parameters

Turbidity ⁵	2007	ntu	0.29	0.03 - 0.29	none	TT	no	Soil runoff, suspended matter in lake water
TOC ⁶	2007	see note ⁵	1.90	1.76 - 2.12	none	TT	no	Naturally present in the environment

Residual Disinfectants

Parameter	Sample Year	Units	Level Found	Range	MRDLG	MRDL	Violation?	Likely Sources
Total Chlorine	2007	ppm	0.94	0.85 - 1.02	4	4	no	Additive used to control microbes

Copper and Lead Testing and Bacteriological Parameters

Parameter	Sample Year	Units	90th	Sites Above AL	MCLG	MCL	Violation?	Likely Sources
Copper ⁷	2005	ppm	0.02	None	1.3	AL=1.3	no	Corrosion of household plumbing,
Lead ⁷	2005	ppb	5	Two	15	AL=15	no	and erosion of natural deposits

1. During November 2007 there were two data recording errors. Follow up monitoring was performed and confirmed that the level of Chlorite in the system was well within acceptable limits. There was no violation or public health concern.
2. TTHM stands for Total Trihalomethanes. MCL compliance is based on the highest annual average (shown as level found).
3. HAA5 stands for Haloacetic Acids. The level found is the highest annual average. MCL compliance is based on the highest annual average.
4. Under the Stage 2 Disinfectants/Disinfection Byproducts Rule (D/DBPR), our public water system was required by USEPA to conduct an evaluation of our distribution system. This is known as an Initial Distribution System Evaluation (IDSE), and is intended to identify locations in our distribution system with elevated DBP concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 DBPR, beginning in 2012. DBPs are the result of providing continuous disinfection of your drinking water and form when disinfectants combine with organic matter naturally occurring in the source water. DBPs are grouped into two categories, TTHMs and HAA5s. USEPA sets standards for controlling the levels of D/DBPs in drinking water, including both TTHMs and HAA5s. Results shown were collected between October 1 and December 31, 2007.
5. Turbidity is a measure of the cloudiness of the water. We monitor it daily because it is a good indication of the effectiveness of our filtration system. The turbidity limit set by the EPA states that all samples must be below 5 ntu and that 95% of the daily samples must be lower than 0.3 ntu. In 2007, all of our samples were below 0.3, indicating that our filtration system is working properly.
6. TOC stands for Total Organic Carbon. The value reported under "Level Found" for TOC is the lowest running annual average ratio between the percentage of TOC actually removed to the percentage of TOC required to be removed. A value of greater than one (1) indicates that the water system is in compliance with TOC removal requirements. A value of less than one indicates a violation of the TOC removal requirements. The value reported under the "Range" for TOC is the lowest monthly ratio to the highest monthly ratio.
7. Compliance for copper and lead is based on the 90th percentile, where 9 out of 10 samples must be below the action level (AL). Because two testing sites exceeded the AL for lead, we are including this information: "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 you 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 (800-426-4791)."

UNREGULATED CONTAMINANTS

Parameter	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation?	Likely Sources
Sodium*	2007	ppm	29.9	10.1 - 29.9	na	na	no	Naturally occurring

*This information is provided for those concerned with sodium in their diet. 29.9 ppm of sodium equates to 7.07 milligrams of sodium per 8 ounce glass of water.



**For More
Information
About Your
Drinking
Water...**



- U.S. Environmental Protection Agency's
Safe Drinking Water Hotline:
800-426-4791
- City of Toledo Web Site:
www.toledo.oh.gov
- On-Line Water Report:
www.toledo.oh.gov
(then search for "drinking water quality report")
- Toledo Water Plant/
Questions about this Report:
419-936-3021
- Toledo City Council Meeting Information:
419-245-1050

Toledo Water Treatment Plant
P.O. Box 786
Toledo, OH 43697-0786

**IMPORTANT INFORMATION ENCLOSED:
2007 WATER QUALITY REPORT**

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