

2010

CITY OF TOLEDO DRINKING WATER QUALITY REPORT

Dear Fellow Citizens,

The City of Toledo provides your drinking water, and it is my privilege to present you with this water quality report for 2010. Our mission is to produce safe and dependable drinking water for our customers.

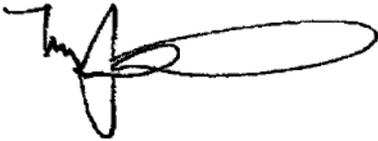
This annual water quality report provides an overview of the quality of drinking water we supplied to you during 2010. Included are details about where your water comes from, what it contains, and how it compares to federal and state standards. Please read the contents of this report thoroughly because it will illustrate that the City is proactively achieving this mission.

Staff at the Collins Park Water Treatment Plant work 24 hours a day, 7 days per week to produce over 27 billion gallons of drinking water that surpasses all federal and state requirements. Their

daily tasks include maintenance, skillful operations, and laboratory analysis. As a result, the customers of the Toledo Water System receive the highest quality drinking water.

The City of Toledo's commitment to produce high quality water, both now and well into the future, continues with the implementation of the 20 Year Master Plan for Capital Improvement Project. This Plan lays the foundation to ensure that the Water Treatment Plant will continue to meet the current needs of the consumer and exceed water quality standards well into the future.

The water provided by the staff at the Toledo Water Treatment Plant contributes to the excellent quality of life that every water customer expects and deserves.



Michael P. Bell
Mayor



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, susceptibility of the source water to contamination may be increased by its proximity to the following: 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.

2010 System-Wide Improvements

Toledo's Water Treatment Plant has an outstanding record of success, consistently maintaining 100% compliance with drinking water quality regulations. Our outstanding performance in 2010 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 2010 to keep our water system functioning at peak performance levels and to maximize service reliability and value:

- Awarded the 20 Year Master Plan for Capital Improvement Project to Arcadis to establish a plan for future plant improvements
- Initiated refurbishing of 250 filter press plates at the Sludge Dewatering Facility
- Replaced plant boilers with high efficiency boilers for the plant's heating needs
- Replaced soda ash boiler
- Repaired Low Speed Pump #4 at the High Service Pump Station to meet low flow demands
- Replaced all low service jet pumps for continuous feed of powdered activated carbon at the Low Service Pump Station
- Completed first year of continuous potassium permanganate feed at the raw water pumping station, which reduced accumulation of zebra mussel shells to almost none

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

2010 DRINKING WATER QUALITY RESULTS

The table below shows the results of the Toledo Water Treatment Plant's water quality tests for 2010. 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	2010	ppm	0.28	.001 - 0.28	0.8	1.0	no	Byproduct of drinking water disinfection
Fluoride	2010	ppm	1.27	0.59 - 1.27	4	4	no	Water additive to promote strong teeth
Nitrate	2010	ppm	3.27	nd - 3.27	10	10	no	Fertilizer runoff; septic tank leaching, sewage; erosion of natural deposits

Synthetic Organic Parameters including Pesticides and Herbicides

Atrazine	2010	ppb	0.98	nd - 0.98	3	3	no	Runoff from herbicide used on row crops
Simazine	2010	ppb	0.092	nd - 0.092	4	4	no	Herbicide runoff

Volatile Organic Parameters

TTHM ¹	2010	ppb	41.2	15.6 - 66.1	0	80	no	Byproducts of drinking water disinfection
HAA5 ¹	2010	ppb	13.2	5.4 - 23	none	60	no	Byproducts of drinking water disinfection

Microbiological Parameters

Turbidity ²	2010	ntu	0.19	0.04 - 0.19	none	TT	no	Soil runoff, suspended matter in lake water
TOC ³	2010	see note ³	1.60	1.60 - 1.95	none	TT	no	Naturally present in the environment

Residual Disinfectants

					MRDLG	MRDL		
Total Chlorine	2010	ppm	1.10	0.90 - 1.10	4	4	no	Additive used to control microbes

Copper and Lead Testing and Bacteriological Parameters

Parameter	Sample Year	Units	90th	Sites >AL	MCLG	MCL	Violation?	Likely Sources
Copper ⁴	2008	ppm	.019	None	1.3	AL=1.3	no	Corrosion of household plumbing and erosion of natural deposits
Lead ⁴	2008	ppb	6	One ⁴	15	AL=15	no	

1. TTHM stands for Total Trihalomethanes. HAA5 stands for Haloacetic Acids. MCL compliance for both TTHM and HAA5 is based on the highest annual average (shown as level found). The range shows the highest and lowest single detects from quarterly compliance monitoring at four different sites in the distribution system.
2. 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 1 ntu and that 95% of the daily samples must be lower than 0.3 ntu. All of our samples were below these requirements, indicating that our filtration system was working properly.
3. 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.
4. Because of favorable past results, copper and lead testing is only required every three years. 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 one testing site was above the AL for lead, we are including this important information: Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels in 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 (800-426-4791).

UNREGULATED CONTAMINANTS

Parameter	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation?	Likely Sources
Metolachlor	2010	ppb	0.39	nd - .39	na	na	no	Broad spectrum herbicide
Sodium*	2010	ppm	28.7	8.0 - 28.7	na	na	no	Naturally occurring

*This information is provided for those concerned with sodium in their diet; 28.7 ppm of sodium equates to 6.8 milligrams of sodium per 8 ounce glass of water.

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 that 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.

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 microbiological contaminants are available from the EPA's Safe Drinking Water Hotline at 800-426-4791.

Information about Lead in Service Lines and Home Plumbing

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. The City of Toledo 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 thirty seconds to two 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. A list of laboratories certified in the State of Ohio to test for lead may be found at www.epa.ohio.gov/ddagw or by calling 614-644-2752. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the EPA's Safe Drinking Water Hotline at 800-426-4791 or at www.epa.gov/safewater/lead.

Information about Cryptosporidium

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

License to Operate (LTO) Status Information

The City of Toledo has a current, unconditional license to operate our water system.

How Do I Participate in Decisions Concerning My Drinking Water?

Toledo's City Council meets every other Tuesday at 4 p.m. at City Hall. Please call 419-245-1050 for meeting information.

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 Treatment Plant/Questions about this Report: 419-936-3021
- Toledo City Council Meeting Information: 419-245-1050

**Toledo Water Treatment Plant
3040 York Street
Toledo, OH 43605**

PRSRT STD
US POSTAGE
PAID
TOLEDO, OH
PERMIT NO. 22

**IMPORTANT INFORMATION ENCLOSED:
2010 WATER QUALITY REPORT**

POSTAL CUSTOMER