

Toledo

Drinking Water Quality Report



2006



Toledo: a City of the Future!

Dear Fellow Citizens,

The City of Toledo prides itself in providing the highest quality drinking water to you and to our neighbors in surrounding communities. We hold ourselves to the utmost standard because that is what we believe our customers deserve.

Once a year, the City presents its Water Quality Report to our consumers. This annual report is a regulatory requirement of the U.S. EPA and the Ohio EPA to demonstrate to our customers that our drinking water meets or surpasses all State and Federal laws. We are pleased to present the 2006 Water Quality Report. The contents of this report contain valuable information that we hope you will find interesting and helpful.

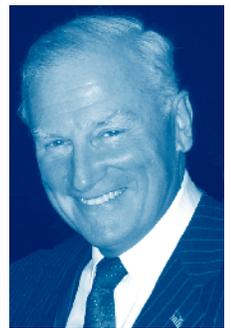
The City continues to achieve its goal of producing high quality, reliable drinking water. The staff at the Collins Park Water Treatment Plant work around the clock to provide the goods and services our consumers have come to expect. It is their responsibility to perform routine maintenance, skillful operations, and laboratory analysis. As a result, the customers of the Toledo Water System receive the highest quality drinking water.

The City of Toledo and Toledo Water Division are proud to be serving our citizens and visitors drinking water that is highly regarded throughout the country. I thank you for being one of our valued customers.

Yours from Toledo - a City of the Future *(fDi Magazine-April 2007)*



Carty Finkbeiner
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, 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.



2006 System-Wide Improvements

The City of Toledo's Water Plant has an outstanding record of success, consistently maintaining 100 percent compliance with drinking water quality regulations. Our outstanding performance in 2006 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 2006 to keep our water system functioning at peak performance levels and to maximize service reliability and value:

- Received an award for 50 Years of Fluoridation from the Ohio Department of Health, Center for Disease Control & Prevention, and the American Dental Association.
- All required testing done with no regulatory or reporting violations.
- Completed rewind/rebuild of pump #1 at the High Service Pump Station.
- Security upgrades continued with the completion of Phase I (lighting and cameras).
- Bacteriological laboratory personnel passed the Ohio Environmental Protection Agency audit.
- Supplied 28.5 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.

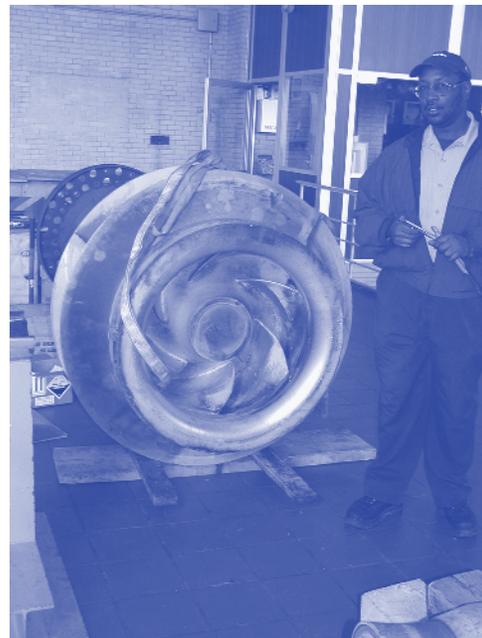
How Do I Participate in Decisions Concerning My Drinking Water?

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

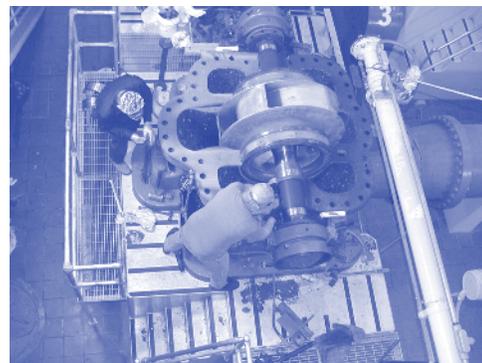
El informe contiene informacion importante sobre la calidad del agua en su comunidad. Traduzcalo o hable con alguien que lo entienda bien.



An Electrician Turns the Rings on High Service Pump #2



A Senior Water Treatment Maintenance Worker Examines the Broken Impellor Shaft from High Service Pump #1



A Millwright and a Water Treatment Maintenance Worker Install the Resleeved Impellor for High Service Pump #3

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.

2006 Water Quality Results

The table below shows the results of the Toledo Water Treatment Plant's water quality tests for 2006. 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 change frequently.

REGULATED CONTAMINANTS

Inorganic Parameters

Parameter	Sample Year	Units	Level Found	Range	MCLG	MCL	Violation?	Likely Sources
Chlorite	2006	ppm	0.23	0.02 - 0.23	0.8	1.0	no	Byproduct of drinking water disinfection
Fluoride	2006	ppm	1.13	0.83 - 1.13	4	4	no	Water additive to promote strong teeth
Nitrate	2006	ppm	2.84	0.31 - 2.84	10	10	no	Fertilizer runoff; septic tank leaching, sewage; erosion of natural deposits

Synthetic Organic Parameters, including pesticides and herbicides

Atrazine	2006	ppb	2.2	<0.30 - 2.2	3	3	no	Runoff from herbicide used on row crops
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Volatile Organic Parameters

TTHM ¹	2006	ppb	41.6	14.5 - 83.7	0	80	no	Byproducts of drinking water disinfection
HAA5 ²	2006	ppb	15.7	4.8 - 29.2	none	60	no	Byproducts of drinking water disinfection

Radioactive Parameters

Beta/photon emitters	2006	pCi/L	5	na	0	AL=50	no	Decay of natural and man-made deposits
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Microbiological Parameters

Turbidity ³	2006	ntu	0.36	0.03 - 0.36	none	TT	no	Soil runoff, suspended matter in lake water
TOC ⁴	2006	see note ⁴	1.86	1.76 - 2.06	none	TT	no	Naturally present in the environment

Residual Disinfectants

Parameter	Sample Year	Units	Level Found	Range	MRDLG	MRDL	Violation?	Likely Sources
Total Chlorine	2006	ppm	0.92	0.76 - 1.0	4	4	no	Additive used to control microbes

Copper and Lead Testing

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

Footnotes

1. TTHM stands for Total Trihalomethanes. MCL compliance is based on the highest annual average (shown as level found).
2. HAA5 stands for Haloacetic Acids. The level found is the highest annual average. MCL compliance is based on the highest annual average.
3. 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 2006, two of our daily samples were above 0.3 (0.35 and 0.36), but we were still well within compliance with 99.7% of the samples below 0.3 ntu.
4. 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.
5. 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 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	2006	ppb	0.37	<0.20 - 0.37	na	na	no	Herbicide runoff
Sodium*	2006	ppm	40.6	9.8 - 40.6	na	na	no	Naturally occurring

*This information is provided for those concerned with sodium in their diet. 40.6 ppm of sodium equates to 9.6 milligrams of sodium per 8 ounce glass of water.



For More Information...

- 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/images/pubutil/2006ccr.pdf
- 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:
2006 WATER QUALITY REPORT**

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