



# City of Oshkosh Annual Drinking Water Quality Report

The City of Oshkosh is pleased to provide you with the Annual Water Quality Report. This report is designed to inform you about the quality of the Oshkosh municipal water supply. Our goal is to provide you with a safe and dependable supply of drinking water every day and we want you to understand the continual effort put forth to improve the water treatment process for protection of the citizens and visitors to the City of Oshkosh.

Drinking water Standards are regulations that the U.S. Environmental Protection Agency (EPA) sets to control the level of contaminants in the nation's drinking water. These standards are part of the Safe Drinking Water Act's "multiple barrier" approach to drinking water protection, which includes assessing and protecting drinking water sources; protecting wells and collection systems; making sure water is treated by qualified operators; ensuring the integrity of distribution systems; and making information available to the public on the quality of their drinking water. With involvement of EPA, states, tribes, drinking water utilities, communities, and citizens, these multiple barriers ensure that the tap water in the United States and territories is safe to drink. In most cases, EPA delegates responsibility for implementing drinking water standards to states and tribes.



## Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was signed into law on December 16, 1974. The purpose of the law is to assure that the nation's water supply systems serving the public meet minimum national standards for the protection of public health.

The SDWA covers all public water systems with piped water for human consumption with at least 15 service connections or a system that regularly serves at least 25 individuals. The SDWA directed the EPA to establish national drinking water standards. These standards limit the amount of certain contaminants provided by public water. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water. 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 EPA Safe Drinking Water Hotline (800) 426-4791.

## Source Water

Oshkosh receives its water from Lake Winnebago, which is supplied by a sixty-one hundred square mile watershed extending to the Wolf River area northwest of the city and the Fox River area to the southwest. The Department of Natural Resources recently assessed the source of Oshkosh's drinking water. It was determined to normally be of good quality but regularly degraded as a result of various events, such as heavy precipitation and spring thawing. These



events cause contaminants associated with human activities, such as agriculture, industry and waste management to drain into the Wolf and Upper Fox Rivers and enter Lake Winnebago. Other occurrences that degrade Oshkosh source water quality include less manageable events such as wind storms and high summertime water temperatures. For more information on the impacts to your source of drinking water, see the "Source Water Assessment for Oshkosh Waterworks" available at the Oshkosh Public Library or visit the Wisconsin Department of Natural Resources (WI-DNR) Source Water Assessment Program website <http://www.dnr.state.wi.us/org/water/dwg/swap/surface/oshkosh.pdf>.

EPA required the utility to do source water testing for Cryptosporidium. Cryptosporidium is a microbial parasite naturally found in surface water and can cause intense gastrointestinal distress in otherwise healthy people. Fifty samples of source water from Lake Winnebago were tested as part of an EPA Program requirement. Of the fifty samples tested, one tested positive for Cryptosporidium.

The water filtration plant incorporates the latest technology in drinking water treatment, including dual media filtration, ozonation, and treatment with granular activated carbon. Filtration removes the suspended solids; ozone breaks down dissolved materials and provides disinfection. The granular activated carbon removes tastes, odors and dissolved organics. An additional disinfection process is done prior to water distribution. The treatment capacity of the water filtration plant is 16 million gallons per day with an average daily pumping rate of 7.5 million gallons per day. The Utility also has four elevated storage tanks and a booster station to meet water usage demands and pressure requirements.



## Regulatory Standards

The Oshkosh Water Utility meets all State of Wisconsin Department of Natural Resources and United States Environmental Protection Agency standards and has never been in violation of any drinking water regulation or standard.

Maximum Contaminant Levels (MCL) are set at very stringent values. The possible health effects described for many regulated constituents would require a person to drink 2 liters of water every day at the maximum contaminant level for a lifetime (70 years) to have a one-in-a-million chance of contracting the described health effect.



Oshkosh Water Works privately owned by W.G. Maxcy from 1883-1917



The "new" water filtration plant which was constructed in 1916.



Oshkosh's current state-of-the-art water treatment facility on Lake Winnebago

## Health Information

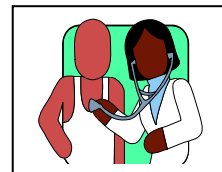
Some people may be more vulnerable to contaminants

in drinking water than the general population. Immuno-compromised persons such as individuals 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 (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other micro-biological contaminants are available from the EPA Safe Drinking Water Hotline (800) 426-4791.

Lead, if present at elevated levels, can cause serious health problems in infants and young children. The primary source of lead in drinking water is from components and materials associated with service lines and home plumbing. The utility has an ongoing program to reduce the potential lead levels in water from piping and plumbing fixtures. When your water has been sitting for several hours, you can minimize potential for lead exposure by flushing your tap for thirty seconds to two minutes 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 EPA Safe Drinking Water Hotline (800) 426-4791.

## No Violations

The accompanying table shows that our system has no violations. The Oshkosh Water Utility takes pride in making sure that your drinking water meets or exceeds all federal and state requirements. Through monitoring and testing, some constituents have been detected. However, the EPA and the WI-DNR have determined that your water is safe for human consumption at these levels.



If you have any questions about this report or your water, please contact the Utilities Superintendent, Stephan Brand at 232-5365 between the hours of 8:00 a.m. and 4:30 p.m.

## Monitoring water quality:

The drinking water quality is monitored daily at the Water Filtration Plant and by the Oshkosh Health Division to ensure its safety for your consumption. The table in this report shows the quality of Oshkosh water compared with the State of Wisconsin and Environmental Protection Agency standards. Monitoring of most constituents is required annually, and if no date is indicated the test was completed in 2009. However, monitoring of some constituents is required once every two or three years and the date in the table will reflect when those water quality samples were taken.

All sources of drinking water are subject to potential contamination by constituents that are naturally occurring or are manmade. Those constituents can be microbes, organic or inorganic chemicals, or radioactive materials. All drinking water, including bottled drinking water, may be reasonably expected to contain at least small amounts of some contaminants. It is important to remember that the presence of these constituents does not necessarily pose a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Drinking Water Hotline at 1-800-426-4791.

## Oshkosh Water Utility

## Summary of Water Quality Data

### Inorganic Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Date of Sample*	Violation	Typical Source of Contaminant
BARIUM (ppm)	2	2	.017	.017	02/19/2008	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
CHROMIUM (ppb)	100	100	5	5	02/19/2008	NO	Discharge from steel and pulp mills; erosion of natural deposits
COPPER (ppm)	AL= 1.3	1.3	0.5200	0 of 30 Results were above the action level.	02/17/2008	NO	Corrosion of household plumbing systems; erosion of natural deposits; Leaching from wood preservatives
FLUORIDE (ppm)	4	4	0.7	0.7	04/01/2008	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
LEAD (ppb)	AL= 15	0	7.50	1 of 30 Results were above the action level.	02/19/2008	**	Corrosion of household plumbing systems; erosion of natural deposits
NICKEL (ppb)	100		2.000	2.000	02/19/2008	NO	Nickel occurs naturally in soils, ground water and surface water and is often used in electroplating, stainless steel and alloy products.
NITRATE (NO3-N) (ppm)	10	10	0.30	0.30		NO	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
SODIUM (ppm)	N/A	N/A	10.00	10.00		NO	N/A

\*\* Systems exceeding a lead action level must take actions to reduce lead in the drinking water. The lead value represents the 90<sup>th</sup> percentile of all compliance samples collected. The utility is in compliance with lead at the 90<sup>th</sup> percentile as required. An ongoing corrosion control program is in place to reduce lead levels from plumbing, piping and fixtures. Thirty samples were taken with one exceeding the action level. Follow up testing was done and all subsequent samples were below the action level.

### Unregulated Contaminants

Contaminant (units)	MCL	MCLG	Level Found	Range	Date of Sample*	Violation	Typical Source of Contaminant
Bromodichloro-methane (ppb)	N/A	N/A	.75	nd- 1.90		NO	N/A
Chloroform (ppb)	N/A	N/A	7.08	1.00- 19.00		NO	N/A
Sulfate (ppm)	N/A	N/A	26.00	26.00	02/19/2008	NO	N/A

### Volatile Organic Contaminants

Contaminant	MCL	MCLG	Level Found	Range	Date of Sample*	Violation	Typical Source of Contaminant
TTHM (ppb)	80	0	9.4	1.0- 20.7		NO	By-product of drinking water chlorination

### Disinfection Byproducts

Contaminant	MCL	MCLG	Level Found	Range	Date of Sample*	Violation	Typical Source of Contaminant
HAA5(ppb)	60	60	6	nd- 9		NO	By-product of drinking water chlorination

\*If prior to 2009.

## Definitions You Need to Know

<b>AL</b>	<b>Action Level:</b> The concentration of a contaminant which, if exceeded, triggers treatment or other requirements, which a water system must follow.	<b>Mrem/year</b>	<b>Millirems per year</b> (a measure of radiation absorbed by the body)
<b>MCL</b>	<b>Maximum Contaminant Level:</b> The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.	<b>NTU</b>	Nephelometric Turbidity Units
<b>MCLG</b>	<b>Maximum Contaminant Level Goal:</b> The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.	<b>pCi/l</b>	Picocuries per liter (a measure of radioactivity)
<b>MFL</b>	Million fibers per liter.	<b>ppm</b>	Parts per million, or milligrams per liter (mg/l)
		<b>ppb</b>	Parts per billion, or micrograms per liter (ug/l)
		<b>ppt</b>	Parts per trillion, or nanograms per liter (ng/l)
		<b>ppq</b>	Parts per quadrillion, or picograms per liter (pg/l)
		<b>TCR</b>	Total Coliform Rule
		<b>TT</b>	<b>Treatment Technique:</b> A required process intended to reduce the level of a contaminant in drinking water.