

**Northern Ohio Rural Water  
Northwest District Drinking Water  
Consumer Confidence Report  
2009**

We are pleased to provide you with this year's Annual Water Quality Report. The purpose of this report is to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is, and always has been, to provide to you a safe and dependable supply of drinking water. We have a current, unconditioned license to operate our water system.

Northern Ohio Rural Water purchases drinking water for its Northwest District from the Erie County Department of Environmental Services Water Division. Erie County's water is supplied from the City of Sandusky Big Island Water Treatment Plant, which treats surface water drawn from Lake Erie.

The City of Sandusky Public Water System uses surface water drawn from two intakes, a main intake located in Lake Erie and an emergency backup intake located in Sandusky Bay. For the purposes of source water assessments, in Ohio all surface waters are considered to be susceptible to contamination. By their nature, surface waters are accessible and can be readily contaminated by chemicals and pathogens, with relatively short travel times from source to intake.

Although the water system's main intake is located offshore in Lake Erie, the proximity of several onshore sources increases the susceptibility of the source water to contamination. The City of Sandusky Public Water System's drinking water source protection area is susceptible to contamination from municipal sewage treatment plants, industrial wastewater, combined sewer overflows, home sewage disposal system discharges, open water dredge disposal operations, and accidental releases and spills, especially from commercial shipping operations and recreational boating.

The City of Sandusky Public Water System treats the water to meet drinking water quality standards, but no single treatment technique 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 Sandusky Public Water System's Drinking Water Source Assessment report, which can be obtained by calling the City of Sandusky Public Water System, 419-627-5805.

The sources of drinking water, both tap water and bottled water include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include: (A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; (B) 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; (C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses; (D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; (E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, USEPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

Northern Ohio Rural Water, Erie County Department of Environmental Services Water Division and the City of Sandusky Big Island Water Treatment Plant routinely monitor for contaminants in your drinking water according to Federal and State laws. These tables show the results of our monitoring for contaminants listed for 2009. (See the following table)

As you can see by the table, NORW did not incur any water quality standard violations in 2009. We are proud that your drinking water meets or exceeds all Federal and State requirements. However, we have detected minor levels of certain contaminants through our monitoring and testing procedures. These have been reviewed by the EPA and have been determined not to pose a health risk.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence does not necessarily indicate that the water poses a health risk. 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. Northern Ohio Rural Water 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 30 seconds to 2 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. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

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 disinfection byproduct concentrations. The locations selected for the IDSE may be used for compliance monitoring under Stage 2 D/DBPR, beginning in 2012. Disinfection byproducts 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. Disinfection byproducts are grouped into two categories, Total Trihalomethanes (TTHM) and Haloacetic Acids (HAA5). USEPA sets standards for controlling the levels of disinfectants and disinfectant byproducts in drinking water, including both TTHMs and HAA5s.

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 infection. 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 microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

If you have any questions about this report or your water utility, please contact Bryan Puder at (419) 668-7213. We want our valued customers to be informed about their water utility. If you would like to learn more, please attend any regularly scheduled meeting. These meetings are held on the third Thursday of the month at the NORW office located at 2205 U.S. Highway 20 E., Norwalk, Ohio.

**2009**  
**NORTHERN OHIO RURAL WATER**  
**NORTHWEST DISTRICT**  
**TABLE OF DETECTED CONTAMINANTS**

CONTAMINANTS	YEAR TESTED	UNITS	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINANTS	VIOLATION N/Y
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**Volatile Organic Contaminants**

TTHM's (Total Trihalomethanes)	2009	ppb	80	0	57.9	42.4-78.4	By-product of drinking water chlorination	N
HAA5 (Haloacetic Acid)	2009	ppb	60	0	21.7	15.3-33.6		N
IDSE TTHM's	2009	ppb	N/A	N/A	N/A	28.0-79.8		
IDSE HAA5's	2009	ppb	N/A	N/A	N/A	13.0-41.4		

**Inorganic Contaminants**

Copper	2008	ppb	AL=1300	0	26.1	<3.0-125.0	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives	N
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CONTAMINANTS	YEAR TESTED	UNITS	MRDL	MRDLG	LEVEL FOUND	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINATES	VIOLATION N/Y
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TOTAL CHLORINE	2009	ppm	4	4	1.23	0.5-1.9	Water additive used to control microbes	N
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**CITY OF SANDUSKY PUBLIC WATER WORKS**  
**TABLE OF DETECTED CONTAMINANTS**

CONTAMINANTS	YEAR TESTED	UNITS	MCL	MCLG	LEVEL FOUND	RANGE OF DETECTION	TYPICAL SOURCE OF CONTAMINATES	VIOLATION N/Y
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<sup>1</sup> Nitrate	2009	ppm	10	10	1.51	.13-1.68	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	N
<sup>2</sup> Fluoride	2009	ppm	4	4	1.18	.79-1.18	Erosion of natural deposits; Water additive which prevents dental cavities	N
Barium	2009	ppb	2000	2000	16.7	0-16.7	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	N

**Microbiological Contaminants**

<sup>3</sup> Turbidity	2009	NTU	0.3	<0.10	0.23	100.0%	Soil Runoff	N
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**FOOTNOTES**

<sup>1</sup>Nitrate: Infants below the age of 6 months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.

<sup>2</sup>Fluoride: Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones; children may get mottled teeth. Mottling, also known as dental fluorosis, may include brown staining and/or pitting of the teeth. Occurs only in developing teeth before they erupt from the gums.

<sup>3</sup>Turbidity: Turbidity is a measure of the cloudiness of the water. The City of Sandusky monitors turbidity because it is a good indicator of the effectiveness of their filtration. \*Low % means- The lowest monthly percentage of samples that are below the turbidity MCL of 0.30 NTU's.

**DEFINITIONS**

AL	Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
MCL	Maximum Contaminant Level: The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available technology.
MCLG	Maximum Contaminant Level Goal: 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.
MRDL	Maximum Residual Disinfectant Level: The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MRDLG	Maximum Residual Disinfectant Level Goal: The level of a 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 contamination.
N/A	Not applicable
NTU	Nephelometric Turbidity Unit: A measure of the clarity of water. Turbidity in excess of 5 is just noticeable to the average person.
ppb or ug/l	Parts Per Billion/micrograms per liter: One part per billion corresponds to about one minute in 2,000 years, or exactly a single penny in \$10,000,000.
ppm or mg/l	Parts Per Million/milligrams per liter: One part per million corresponds to about one minute in two years or exactly a single penny in \$10,000.
TT	Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
"<"	The "<" symbol: A symbol that means less than. A result of <.5 means that the lowest level that could be detected was .5 and the contaminant in that sample was not detected.

The state requires Northern Ohio Rural Water to monitor for some contaminants less often than once per year because the concentrations do not change frequently.