

Annual Drinking Water Quality Report
City of Marengo - IL1110650
For the period January 1 to December 31, 2006

This report is designed to inform the Citizens of Marengo about the quality water and services that we deliver every day. Our constant goal is to provide a safe and dependable supply of drinking water. We are continually striving to improve the water treatment process and protect our water resources. We are committed to ensuring the quality of Marengo's drinking water. This report will not be mailed to Marengo water customers; however the reports are available upon request. For more information regarding this report or to request a copy of this report, please call the Water Department at (815) 568-1418, extension 224.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcala o hable con alguien que to entienda bien.

The City of Marengo routinely monitors for constituents in its drinking water according to Federal and State laws. This report indicates the results of our monitoring for the period of January 1 to December 31, 2006. The employees of the City of Marengo Water Department work around the clock to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future.

Source of Drinking Water

The source of drinking water used by Marengo is Ground Water. The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater 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:

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, urban storm water runoff, and residential uses.

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.

Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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 water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at (800) 426-4791.

In order to ensure that tap water is safe to drink, the EPA 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.

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 infections. 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 at (800) 426-4791.

Source Water Assessment

A Source Water Assessment summary is included below for your convenience.

To determine Marengo's susceptibility to groundwater contamination, the following documents were reviewed: a Well Site Survey, published in 1989 by the Illinois EPA; a Hazard Review, published in 1990 by the Illinois EPA; and a Source Water Protection Plan prepared by the City of Marengo and published by the Illinois Rural Water Association in May of 1997. Based on the information obtained in these documents, there are 9 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by the City's community water supply wells. Furthermore, information

provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of Illinois EPA indicated several additional sites with ongoing remediations which may be of concern.

Based upon this information, the Illinois EPA has determined that Marengo's Community Water Supply's source water has a high susceptibility to VOC and SOC contamination. The basis for this determination includes the detection of VOC in Well No. 6 and the land use within the recharge areas of the wells. This land use includes both industrial and agricultural properties. However, as a result of monitoring conducted at the wells and entry point to the distribution system, the land use activities and source water protection initiatives by Marengo (refer to the following section of this report), the Marengo Community Water Supply's source water has a low susceptibility to IOC contamination.

The Illinois Environmental Protection Act provides minimum protection zones of 400 feet for Marengo's wells. These minimum protection zones are regulated by the Illinois EPA. **To further reduce the risk to the source water, Marengo has implemented a source water protection program which includes a source water planning and education committee, source water protection management strategies and contingency planning. This effort resulted in the community water supply receiving a special exception permit from the Illinois EPA which allows a reduction in SOC monitoring. The outcome of this monitoring reduction has saved Marengo considerable laboratory analysis costs.** However, due to a lack of implementing source water protection management strategies, their Safe Drinking Water Act Monitoring Waiver has been revoked and not been renewed.

In addition, Marengo has enacted a "maximum setback zone" for Well Nos. 6 and 7, which is authorized by the Illinois Environmental Protection Act and allows county and municipal officials the opportunity to provide additional potential source prohibitions up to 1,000 feet from their wells. Marengo also enacted a comprehensive overlay zoning ordinance for existing and new businesses located within the recharge area of their wells. As a result of Marengo's significant progress in developing a comprehensive groundwater protection program, the National Groundwater Foundation has previously recognized Marengo as a Groundwater Guardian Community.

To further minimize the risk to Marengo's groundwater supply, the Illinois EPA recommends that four additional activities be considered. First, Marengo should consider enacting a maximum setback ordinance that includes Well No. 8 (which became active in March 2004). Second, the Water Department may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe and adequate water. Third, the Water Department is encouraged to review their cross-connection control program to ensure that it remains current and viable. Cross-connections to either the water treatment plant (for example, at bulk water loading stations) or in the distribution system may negate all source water protection initiatives provided by the community. Finally, the Illinois EPA recommends that Marengo investigate additional source water protection management options to address the land use activities within the community wells' recharge area. Specifically, these management options should include potential impacts from the commercial and industrial land-use activities within the community wells' recharge area, as well as non-point sources related to agricultural land uses.

2006 Regulated Contaminants Detected

Lead and Copper - Date Sampled: 12/31/06

Definitions:

Action Level (AL): The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALG=s allow for a margin of safety.

Lead MCLG	Lead Action Level (AL)	Lead 90th Percentile	No. Sites Over Lead AL	Copper MCLG	Copper Action Level (AL)	Copper 90th Percentile	No. Sites Over Copper AL	Likely Source of Contamination
0	15 ppb	Ppb	0	1.3 ppm	1.3 ppm	ppm	2	Corrosion of household plumbing systems; Erosion of Natural deposits

Water Quality Test Results

Definitions: The following tables contain scientific terms and measures, some of which may require explanation.

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal as feasible using the best available treatment technology.

Maximum Contaminant Level Goal (MCLG): 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.

mg/l: milligrams per litre or parts per million — or one ounce in 7,350 gallons of water.

ug/l: micrograms per litre or parts per billion — or one ounce in 7,350,000 gallons of water.

N/A: not applicable

Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.

Maximum Residual Disinfectant Level (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health, MRDLGs allow for a margin of safety.

Regulated Contaminants:

Disinfectants & Disinfection By-Products	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Violation	Likely Source of Contamination
TTHMs [Total Trihalomethanes]	9/15/04	N/A	80	6.9	3.2-6.9	ppb	No	By-product of drinking water chlorination
Total Haloacetic Acids (HAAS)	6/29/04	N/A	60	2	N/A	ppb	No	By-product of drinking water chlorination
Chlorine	12/31/06	MRDLG = 4	MRDL =4	0.3388	0.311-0.3388	ppm		Water additive to control microbes
Inorganic Contaminants	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Violation	Likely Source of Contamination
Arsenic (some people who drink water containing arsenic in excess of the MCL over	11/14/06	0	10	1	0-1	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from electronics production wastes

many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer)								
Barium	4/03/06	2	2	0.11	0.048 - 0.11	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	11/14/06	4	4	1.7	0.92 - 1.7	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge
Nickel	11/14/06	N/A	N/A	9	0 - 9	ppb	No	Erosion of natural deposits; Leaching
Nitrate-Nitrite	1/04/06	10	10	1.4	0 - 1.4	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits
Nitrate (As N)	1/4/06	10	10	1.4	0 - 1.4	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage, Erosion of natural deposits
Radioactive Contaminants	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Violation	Likely Source of Contamination
Alpha Emitters	1/18/05	0	15	1.3	N/A	pCi/L	No	Erosion of natural deposits
Combined Radium	1/18/05	0	5	0.7	N/A	pCi/L	No	Erosion of natural deposits
State Regulated Contaminants	Collection Date	MCLG	MCL	Highest Level Detected	Range of Levels Detected	Units	Violation	Likely Source of Contamination
Iron*	4/03/06	N/A	1000	1600	0.764 - 1600	ppb	No	Erosion from naturally occurring deposits
Manganese *	11/14/06	N/A	150	150	0.166 - 150	ppb	No	Erosion of naturally occurring deposits
Sodium**	11/14/06	N/A	N/A	27	8.3 — 27	ppm	No	Erosion of naturally occurring deposits; Used as water softener
Zinc	11/14/06	N/A	5000	13	0 — 13	ppb	No	Naturally occurring; discharge from metal factories

TABLE NOTES

*This contaminant is not currently regulated by USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1000 or more

**There is not a State or Federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.