



# Roosevelt Park

## Annual Water Quality Report

### 2008



### System Overview

Roosevelt Park purchases its water from the City of Muskegon. The Muskegon Water Filtration Plant is a conventional water treatment plant with a capacity of 40 million gallons per day. Its customers include not only Roosevelt Park, but also the City of Muskegon, Muskegon Township, North Muskegon and the County Northside System.

Your water comes from Lake Michigan. The state performed an assessment of our source water in 2003 to determine the susceptibility or the relative potential of contamination. The susceptibility rating is on a six-tiered scale from very low to high, based primarily on geologic sensitivity, water chemistry and contaminant sources. The susceptibility of our source water is moderately high.

A copy of our source water assessment plan is available by contacting Robert Veneklasen, Plant Supervisor at: 724-4104

### Water Quality Exceeds Mark!

( A Note From the Muskegon Filtration Plant )

Dear Customers,

We are pleased to report that the water we treat has never had a violation of a contaminate level or of any other water quality standard.

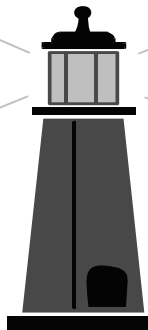
This report contains a summary of the quality of the water provided to you during 2008 and details where our water comes from, what it contains, and the risks our water testing and treatment

are designed to prevent. Muskegon Water Filtration Plant technicians are committed to providing you the safest and most reliable water supply. Informed customers are our best allies in maintaining safe drinking water.

Our State certified lab runs over 8,000 test each year.

This includes collecting water samples at various stages of the treatment process as well as throughout the distribution system. These samples are analyzed for many different chemical and microbiological parameters. Our sophisticated lab equipment can detect substances at very low levels. 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 our water poses a health risk.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at: (800) 426-4791



Muskegon Water Plant treated over 3.4 billion gallons of water in 2008

### Cross Connections *Preventing the threat*

A cross connection is a dangerous piping arrangement which can allow unsafe water, sewage, chemical solutions or other dangerous liquids to enter the drinking water system. Some suggestions to avoid a cross connection include keeping garden hoses off the ground and out of standing water and eliminating and preventing connections between the public water supply and private well systems.

For further information concerning cross connections and their prevention, you may contact, Matthew Farrar at the Public Works Department 755-3721

### You Can Help

Don't pour petroleum based oils, paints, solvents, weed & bug killers or undiluted industrial strength cleaning products down the drain.

Take all hazardous chemicals to a hazardous waste collection site for proper disposal. Use environmentally friendly shampoos and detergents (look for low phosphate or phosphate-free products). Use natural gardening techniques to avoid over-use of pesticides and fertilizers which may run off into streams and lakes.

#### GET INVOLVED

### Customer Views Welcome!

Meetings that deal with decisions about our source water are conducted through the Muskegon Conservation District. You may contact the Muskegon Conservation District at: 773-0008

For further information concerning your water supply, contact Matthew Farrar, Public Works Superintendent at: 755-3721, or see U.S. Environmental Protection Agency (EPA) water information website at: [www.epa.gov/safewater](http://www.epa.gov/safewater)

# Treated Water Quality Chart

Listed below are the detected water quality parameters for Roosevelt Park's drinking water during the reporting period of 2008. All are below allowed levels. Not listed are the hundreds of other parameters for which we test that were not detected.

Substance	Highest Level Allowed (EPA'S MCL'S)	Highest Level Detected	Ideal Goal (EPA'S MCLG'S)	Source of Contaminant	Violation Yes/NO
Nitrate	10 PPM	0.6 PPM	0 PPM	Erosion of natural deposits	no
TOC	TT	*1.89 PPM	N/A	Naturally present	no
Turbidity	.30 NTU	** .09 NTU	N/A	Lake sediment	no
Fluoride	4.0 PPM	.95 PPM	4.0 PPM	Additive	no
Selenium	50 PPB	1 PPB	50 PPB	Erosion of natural deposits	no
Barium	2 PPM	.02 PPM	2 PPM	Erosion of natural deposits	no

\*TOC or total organic carbon is measured quarterly. Because Muskegon removes 25% of the TOC from the source water (Lake Michigan) we are in compliance.

\*\*Turbidity is a measure of the cloudiness of the water. Its monitored because it is a good indicator of the water quality. Lowest monthly percent of samples meeting limits is 100%.

### Regulated at the Treatment Plant

Substance	Highest Level Allowed (EPA'S MCL'S)	Highest Level Detected	Ideal Goal (EPA'S MCLG'S)	Source of Contaminant	Violation Yes/NO
Maximum Residual Disinfectant Level	4 PPM	.92 PPM	N/A	Disinfectant (Chlorine)	no
Total Trihalomethanes	80 PPB Avg.	30.8 PPB	N/A	Disinfection by-product	no
Haloacetic Acid	60 PPB	21 PPB	N/A	Disinfection by-product	no

Detection Range: Total Trihalomethanes 11 PPB to 44 PPB, Haloacetic Acid 10 PPB to 42 PPB  
MRDL .01 PPM to 1.49 PPM Fluoride 0.32 PPM to 1.14 PPM

### Unregulated Contaminants

Sodium	Not Regulated	12PPM	N/A	Naturally occurring mineral	
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Unregulated contaminants are those for which the EPA has not established standards. The purpose of monitoring these contaminants is to assist the EPA in determining occurrences and whether future regulation is warranted.

### Regulated at Customer's Tap

Lead	15 PPB (AL)	3.0 PPB	90th Percentile	0	Plumbing
Copper	1300 PPB (AL)	70.0 PPB	90th Percentile	0	Plumbing

Detection level for lead was 0-4 PPB and copper 8-170 ppb.

**Lead:** 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 that of homes in the community as a result of materials used in your homes plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. To reduce or eliminate lead levels, flush your tap for 30 seconds to 2 minutes before using the water.

**Health Effects:** Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

### Definitions

**Maximum Contaminant Level (MCL) -** 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 treatment technology available.

**Maximum Contaminant Level Goal (MCLG) -** The level of a contaminant in drinking water below which there is no known health risk. MCLG's allow for a margin of safety.

**PPM (mg/l) -** One part per million.

**PPB -** One part per billion.

**Action Level (AL) -** The concentration of a contaminant that triggers treatment or other requirements that a water system must follow. Action Levels are reported at the 90th percentile for homes at greatest risk.

**NTU -** Nephelometric Turbidity Units.

**TT - Treatment Technique -** A required process intended to reduce the level of a contaminant.

**RAA -** Running Annual Average.

**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.

**MRDLG -** The level of a drinking water disinfectant below which there is no known or expected health risk.

**MRDLG's** do not reflect the benefits of the use of disinfectants to control microbial contaminants.

### Cryptosporidium

Cryptosporidium is a microscopic organism that, when ingested, can result in diarrhea, fever and other gastrointestinal symptoms. The Muskegon Water Filtration Plant has tested for Cryptosporidium in both Lake Michigan and in the water they treat. The organism is present in Lake Michigan and comes from animal waste in the watershed. Cryptosporidium is eliminated by an effective treatment combination including filtration, sedimentation and disinfection. Cryptosporidium was not found in the treated water.

### Did You Know?

Three gallons of water cost less than one penny, delivered to you 24 hours a day, seven days a week!

### Water Quality Concerns

Some people may be more vulnerable to contaminants in the drinking water than the general public. Immune-compromised persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with either HIV / AIDS or other immune system disorders, some elderly persons and infants can be particularly at risk for infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium are available from the EPA's Safe Drinking Water Hotline at: (800) 426-4791

**Sources of drinking water:** The sources of drinking water (both tap and bottled) include rivers, lakes, ponds, reservoirs, springs and wells. Our water comes from Lake Michigan. As water travels over the surface of the land and through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances 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 run-off, industrial or domestic wastewater discharges, oil and gas production, mining and farming.
- \* Pesticides and herbicides, which may come from a variety of sources such as agriculture and residential uses.
- \* Radioactive contaminants, which are naturally occurring or the result of oil and gas production and mining activities.
- \* 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 run-off and septic systems.

In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water which provide the same protection for public health.