

**ANNUAL DRINKING WATER QUALITY REPORT
VILLAGE OF CHATHAM, ILLINOIS**

Annual Water Quality Report for the period of January 1 to December 31, 2013. This report is intended to provide you with important information about your drinking water and the efforts made by the water system to provide safe drinking water. The primary source of water used by CHATHAM is Purchased Ground Water.

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Este informe contiene información muy importante sobre el agua que usted bebe. Tradúscalo ó hable con alguien que lo entienda bien.

Sources of Drinking Water

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:

- 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, 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 (800-426-4791).

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. We 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>.

CHATHAM, FACILITY NO. IL 1670300

Source Water Information

Source Water Name		Type of Water	Report Status	
CC03 - CONNECTION TO SSWC	South Sangamon Water Commission	GW	Active	95%
CC01 - MASTER METER – CONNECTION TO SPRINGFIELD	Springfield - CWLP	SW	Active	5%
CC02 - PIPER GLEN METER – CONNECTION TO SPRINGFIELD	Springfield - CWLP	SW	Inactive	0%

Source Water Assessment

We want our valued customers to be informed about their water quality. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings the 2nd and 4th Tuesday of each month at 6:00 at the Municipal Building, 117 East Mulberry Street. The source water assessment for our primary source has not been completed by the Illinois EPA. The source water assessment for our secondary supply has been completed by the Illinois EPA. If you would like a copy of this information, please stop by City Hall or call our water operator at (217) 483-2451. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

The primary source of water is the South Sangamon Water Commission. Water from 10 ground water wells is treated and then distributed to our customers.

Lake Springfield is the secondary water source of our drinking water. It contains 16.7 billion gallons when full and covers about 4,200 acres. Its 265 square mile watershed, including the Sugar and Lick Creek drainage areas, is composed primarily of agricultural land. Water is pumped from the South Fork of the Sangamon River at its confluence with Horse Creek during times of low precipitation.

Illinois EPA considers all surface water sources of community water supply to be susceptible to potential pollution problems; hence, the reason for mandatory treatment for all surface water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration, and disinfection. Causes of pollution to the lake include nutrients, siltation, suspended solids, and organic enrichment. Primary sources of pollution include agricultural runoff, land disposal (septic systems), and shoreline erosion.

Water Quality Test Results

- Maximum Contaminant Level Goal or 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.
- Maximum Contaminant Level or MCL: 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.
- Maximum Residual Disinfectant Level Goal or MRDLG: 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 contaminants.
- Maximum Residual Disinfectant Level or 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.

2013 Regulated Contaminants Detected

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

- ppb: micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water.
- NA: not applicable.
- Avg: Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water.

Microbiological Contaminants

Contaminants	Date Sampled	MCLG	MCL	Your Water	Range of Levels Detected	Violation	Typical Source
Fecal coliform/E.Coli – in the distribution system (positive samples)	2013	0	0	0	NA	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform o E. Coli							
Total Coliform (% positive samples/month)	2013	0	5	0	NA	No	Naturally present in the environment

Lead and Copper

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

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

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2013	1.3	1.3	0.84	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives household; Corrosion of plumbing systems.
Lead	2013	0	15	1.5	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chlorine	12-31-2013	0.8	0.2 – 0.38	MRDLG=4	MRDL=4	ppm	N	Water additive used to control microbes.

Highest chlorine level detected is average of multiple samples for individual month. Range of level detected running average of monthly averages during year.								
Haloacetic Acids (HAA5)	2013	0	0 - 1	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TTHm)	2013	7.851	7.851 - 10	No goal for the total	80	ppb	N	By-product of drinking water chlorination.
Highest level detected for annual monitoring for HAA5 is 0 and TTHM is 7.851. Quarterly monitoring for 2013 is not a complete year.								

SOUTH SANGAMON WATER COMMISSION, FACILITY NO. IL 1670080

Primary Source Water Information

Source Water Name :	Type of Water	Report Status	Location
Ten Wells	South Sangamon Water Commission	GW	Active
			Rochester and Cooper Townships

2013 Regulated Contaminants Detected

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Haloacetic Acids (HAA5)	2013	1.1	1.1 - 1.1	No goal for the total	60	ppb	N	By-product of drinking water disinfection.
Total Trihalomethanes (TTHm)	2013	7.32	7.19 - 7.32	No goal for the total	80	ppb	N	By-product of drinking water disinfection.

Inorganic Contaminates	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Barium	7-19-12	0.0204	0.0204 - 0.0204	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	7-19-12	0.79	0.79 - 0.79	4	4.0	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	7-19-12	17.8	17.8 - 17.8	150	150	ppb	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.
Nitrate [measured as Nitrogen]	2013	0.347	0.347 - 0.347	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	7-19-12	116	116-116	NA	NA	ppm	N	Erosion from naturally occurring deposits: Used in water softener regeneration.
Zinc	7-19-12	0.0115	0.0115 - 0.0115	5	5	ppm	N	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal.

There is no state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, consult a physician about this level.

Radioactive Contaminates	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226/228	2013	1.06	0.1 - 1.06	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha Excluding Radon and Uranium	2013	1.2	1.15 - 1.2	0	15	pCi/L	N	Erosion of natural deposits.

Test results for the wells are available upon request.

SPRINGFIELD, FACILITY NO. IL 1671200

Secondary Source Water Information

Source Water Name	Type of Water	Report Status	Location
INTAKE (52140) LAKE SPFLD 1 INTAKE	SW	---	1400' NE WTP NEAR DAM
INTAKE (52141) S FK HRSE CRK INTKE	SW	---	3MI FRM WTP ON EAST LAKE

2013 Regulated Contaminants Detected

Microbiological Contaminants

Contaminants	Date Sampled	MCLG	MCL	Your Water	Range of Levels Detected	Violation	Typical Source
Fecal coliform/E.Coli - in the distribution system (positive samples)	2013	0	0	0	NA	No	Human and animal fecal waste
A violation occurs when a routine sample and a repeat sample, in any given month, are total coliform positive, and one is also fecal coliform o E. Coli							
Total Coliform (% positive samples/month)	2013	0	5	0.8	NA	No	Naturally present in the environment

Lead and Copper

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90 th Percentile Supplied Water	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	09/02/2010	1.3	1.3	0.055	0	ppm	N	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	09/02/2010	0	15	1.7	0	ppb	N	Corrosion of household plumbing systems; Erosion of natural deposits.

Regulated Contaminants

Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	2013	2	2 - 2	MRDLG=4	MRDL=4	ppm	N	Water additive used to control microbes.
There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.								
Haloacetic Acids (HAA5)	2013	25	5.3 - 33.1	No goal for the total	60	ppb	N	By-product of drinking water chlorination.
Total Trihalomethanes (TTHm)	2013	44	24 - 43.08	No goal for the total	80	ppb	N	By-product of drinking water chlorination

Inorganic Contaminates	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Arsenic	2013	2	NA	0	10	2	N	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium	2013	0.021	N/A	2	2	ppm	N	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2013	0.8	0.78 - 0.97	4	4	ppm	N	Erosion of natural deposits; water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate [measured as Nitrogen]	2013	4	0.05 - 6.48	10	10	ppm	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Sodium	2013	18	N/A	NA	NA	ppm	N	Erosion from naturally occurring deposits: Used in water softener regeneration.

There is no state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials who are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, consult a physician about this level.

Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Combined Radium 226-228	2011	0.828	0.828-0.828	0	5	pCi/L	N	Erosion of natural deposits.
Gross alpha excluding radon & uranium	2011	0.365	0.365-0.365	0	15	pCi/L	N	Erosion of natural deposits.

-Pecocuries per liter (pCi/L): A measure of radioactivity.

Turbidity

	Collection date	NTU Limit (Treatment technique)	Level Detected	Violation	Likely Source of Contamination
Highest single measurement	2013	1 NTU	0.44 NTU	N	Soil runoff.
Percent of Samples Meeting limit	2013	0.3 NTU	99.72	N	Soil runoff.

- Nephelometric Turbidity Units (NTU): Turbidity is a measure of the cloudiness of the water. It is monitored because it is a good indicator of the effectiveness of our filtration system. When percentage of samples less than 0.3 NTU is below 95%, a TT violation has occurred.

Total Organic Carbon

The percentage of Total Organic Carbon (TOC) removal was measured each month and the system met all TOC removal requirements set, unless a TOC violation is noted in the violations section.

Additional Monitoring

As part of an on-going evaluation program the EPA has required us to monitor some additional contaminants/chemicals. Information collected through the monitoring of these contaminants/chemicals will help to ensure that future decisions on drinking water standards are based on sound science.

Name	Reported Level	Range of Levels Detected	Units	Typical Source
Chromium (total chromium)	1.7	1.1 - 1.7	ppb	Naturally - occurring element
Chromium - 6 (hexavalent chromium)	1.8	0.91 - 1.8	ppb	Naturally - occurring element
Strontium	96	65 - 96	ppb	Naturally - occurring element
Vanadium	5.6	3.5 - 5.6	ppb	Naturally - occurring element
Cobalt	1.6	1.6 - 1.6	ppb	Naturally - occurring element
Molybdenum	1.3	1.3 - 1.3	ppb	Naturally - occurring element