# **Annual Drinking Water Quality Report**

#### **REND LAKE INTER-CITY WATER SYSTEM**

### IL0555100

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 REND LAKE INTER-CITY WATER SYSTEM to provide safe drinking water.

The source of drinking water used by REND LAKE INTER-CITY WATER SYSTEM is Surface Water. For more information regarding this report contact:

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

### Source of Drinking 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 pickup 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 may 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, 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.

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. USEPA/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

### Source Water Assessment

Rend Lake is utilized by the Rend Lake Intercity Water System (Facility # 0555100) to provide water to 67 communities in Williamson, White, Saline, Perry, Jefferson, Jackson, Hamilton and Franklin Counties. This facility draws water from Rend Lake through one surface water intake (IEPA #70290). The supply provides approximately 15 million gallons per day to 67 satellite supplies with an estimated population of 173,000 persons. Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. Our surface supply location is INTAKE (70290) REND LAKE SURFACE. 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. These meetings are on the 4<sup>th</sup> Monday of each month at our administration office located at 11231 Marcum Branch Rd., Benton, IL. The source water assessment for our supply has been completed by the Illinois EPA. If you would like t 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.

## **2013 Regulated Contaminants Detected**

#### Lead and Copper Date Sampled: 08/27/12

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	Lead Action	Lead 90th	# Sites Over	Copper	Copper Action	Copper 90th	# Sites Over	Likely Source of Contamination
MCLG	Level (AL)	Percentile	Lead AL	MCLG	Level (AL)	Percentile	Copper AL	
0	15 ppb	0	0	1.3 ppm	1.3 ppm	0	0	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. MCL's 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. MCLG's allow for a margin of safety. ppm: milligrams per liter or parts per million - or one ounce in 7,350 gallons of water, 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 MCL's are based on running annual average of monthly samples. Maximum Residual Disinfectant Level (MRDL): 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. Maximum Residual Disinfectant Level Goal (MRDLG): The level of disinfectant in drinking water below which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

### **Regulated Contaminants**

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	МС	L U	nits \	/iolati	on		Likely Source Of Contaminant	
*Not all sample results may have bee	Not all sample results may have been used for calculating the Highest level detected because some results may be part of an evaluation to determine where compliance sampling should occur in the future.											
*Total Haloacetic Acids (HAA5)	2013	16	11.6~ 19.1	N/A	60		ppb	No	Ву	-product of d	rinking water chiorination	
*TTHMs [Total Trihalomethanes]	2013	33	23.8-42.3	N/A	80		ppb	No	By-product of drinking water chlorination			
Chlorite	2013	1.53	0-1.53	.8	i	ŗ	opm	om No		By-product of drinking water chlorination		
Chloramines	2013	2.9	2.7 - 3	MRDLG=4	MRDL	=4 ¢	opm	m No		Water additive used to control microbes		
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Viola	iolation		Likely Source Of Contaminant		
Barlum	2013	0.0191	.01440191	2	2	ppm	N	No Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits				
Arsenic	2013	1	.939-1.02	0	10	ppb	N	No Erosion of natural deposits; Runoff from orchards; Runoff from electro production wastes		posits; Runoff from orchards; Runoff from electronics		
Fluoride	2013	0.9	.919919	4	4	ppm			Erosion of natural deposits; Water additive which promotes strong teeth; Fertilizer discharge			
Nítrate (measured as Nitrogen)	2013	.115	0.115-0.115	10	10	Ppm			Runoff from fertilizer uses: Leaching from septic tanks, sewage: Erosion of natural deposits.			
Sodium 2013		22	12-22			ppm	N	10	Erosion from naturally occurring		ly occurring deposits:	
Radioactive Contaminar	Collection Da	te Highest Lev Detected		Range of Levels Detected		MCL	.GMCI	LUnits	Violation	Likely Source Of Contaminant		
Combined Radium 226/228		2-4-08	1.36		1.36-1.36		0	5	pCi/L	No	Erosion of naturally occurring deposits;	
Gross Aipha Excluding radon and	2-4-08	1.3		1.3-1.3		0	15	pCl/L	No	Erosion of naturally occurring deposits;		

Synthetic Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units Vi	iolation	Likely Source Of Contaminant
Atrazine	2013	.48	0-0.48	3	3	Ppb	N	Runoff from fertilizer used on row crops
Simazine	2013	.55	0-0.55	4	4	Ppb	N	Herbicide runoff

Turbidity Information Statement: Turbidity is a measurement of the cloudiness of the water caused by suspended particles. We monitor it because it is a good indicator of water quality and the effectiveness of our filtration system and disinfectants.

Lowest Monthly % meeting limit	Limit (Treatment Technique)	Violation	Source
100%	0.3 NTU	No	Soil Runoff
Highest Single Measurement	Limit (Treatment Technique)	Violation	Source

VIOLATIONS: There were no violations this reporting period.

## **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 violation sections.