

# VILLAGE OF RANTOUL

## 2008 ANNUAL DRINKING WATER REPORT

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**Dear Customer:** We are pleased to present a summary of the quality of the water provided to you for the period of January 1, 2008 to December 31, 2008. The Safe Drinking Water Act of 1996 (SDWA) requires that water utilities issue an annual "Consumer Confidence" report to customers, in addition to other notices that may be required by law, that details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. **The Village of Rantoul's drinking water meets or surpasses all federal and state drinking-water standards.** The Village of Rantoul is committed to providing you with the safest and most reliable water supply.

Informed consumers are our best allies in maintaining safe drinking water. Call us for information about the next opportunity for public participation in decisions about our drinking water.

Consult our Web site at [www.myrantoul.com](http://www.myrantoul.com) and, for further information, see U.S. Environmental Protection Agency (EPA) water information at [www.epa.gov/safewater](http://www.epa.gov/safewater).

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

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**The Village of Rantoul's drinking water meets or surpasses all federal and state drinking-water standards. La Aldea de Rantoul es bebiendo agua encuentra o supera todo federal y el estado que bebe los estándares de agua.**

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### Year in Review

During 2008, the Village of Rantoul continued construction of improvements on the Water Treatment Plant. The Village made improvements to both the East and West sides of the treatment plant that will reduce scaling in the distribution system, allow improved process control and provide greater operational flexibility during the treatment process. The Village also made structural improvements to the West Side of the facility to ensure that the plant meets current building codes and to ensure its structural integrity. Additionally, the Village made improvements to the electrical system at the plant that will allow the Village to operate the entire plant on a single standby generator during an extended loss of power.

The project was awarded on April 10, 2007 to Leander Construction, Inc. from Canton, Illinois. Construction on the East Plant began in mid-May of 2007 and was completed in November of 2008. Construction of improvements on the West Plant began in the Fall of 2008 and will be completed in June of 2009. The final project cost is \$5.3 million.

The Village also completed improvements to the water distribution system. These improvements include the installation of a new 12" water main along south Evans Road near the proposed

industrial development. This project was completed in May 2008. This improvement will help meet current and future industrial water needs.

The Village's water facilities are located throughout the community. If you see any unusual activity around water utility facilities, please immediately contact the Public Works Department (892-2178) or the Rantoul Police Department (892-2103) immediately.

**Inside the new East Plant and Claricone Room.**



## Water Source

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What is the source of our water? Eight (8) wells at a depth of 125 to 300 feet in Rantoul supply our system with groundwater of high purity. Wells #5, #7, #8, #9, #10, #11, #12, and #13 provide an average of

1,420,000 gallons per day to 3,400 services or a population of 13,000. The aquifers (underground water sources), which underlay Champaign County and Rantoul, were formed during three successive periods of glaciation. The layers of debris left behind during these periods formed the groundwater aquifers which all of Champaign County derives its water. Collectively they are known as the Mahomet Bedrock Valley Aquifer.

Rantoul's water supply wells are located in the lower two aquifers. The lowest aquifer found at a depth of over 200 feet beneath the ground surface was created during the first glacial age or Kansan age. This aquifer is filled with large quantities of continuous sand and gravel deposits and is capable of producing up to 3000 gallons per minute (gpm) of water.

The following glacial period, or Illinoian age, created the middle aquifer known as the Glasford Formation. This aquifer is located between depths of 50 to 200 feet below the ground surface. Water from the Mahomet Aquifer is pumped out of the ground. This ground water is pumped to our water treatment facility through a network of underground pipes.

An article by Samuel Panno and Holly Korab in *The Illinois Steward*, Spring 2000, Panno and Korab noted that, "In its purity, though, the

Mahomet Aquifer surpasses these and nearly every water source in Illinois,..." They further noted. "Drink a glass of tap water from the aquifer and you're drinking water that fell on earth between 3,000 and 10,000 years ago, well before pesticides, petroleum-based fuels, or industrial pollutants made their appearance. This "fossil" water is free of harmful bacteria and pollutants. To find cleaner water, you'd have to melt ice from deep within an arctic glacier."

To determine Rantoul's susceptibility to groundwater contamination, a Well Site Survey, published in 1991 by the Illinois EPA, and a potential source inventory conducted by the Illinois Rural Water Association in 2001, were reviewed. Based on the information contained in these documents, forty-nine potential sources of groundwater contamination are present that could pose a hazard to groundwater pumped by the Rantoul community water supply wells. These include seven (7) below ground fuel storages, an above ground fuel storage tank, a hardware store, five electrical generators/substations, twelve auto repair shops, an above or below ground fuel storage tank, eight vehicle sales, two autobody shops, two stores/sales, a printing facility, a small engine repair, four manufacturing processes, a former military installation, a former petroleum storage facility, a treated wood/lumber yard, and a dry cleaners.

The Illinois EPA has determined that Rantoul wells #5, #7, #8, #9, #10, #11, #12 and #13 are not susceptible to IOC, VOC and SOC contamination. This determination is based on a number of criteria including: monitoring conducted at the wells, monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data for the wells.

## Water Quality Table

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### How to Read This Table

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here and is well below all federal and state drinking water standards. The table contains the name of each substance, the highest level allowed by regulation (MCL); the

ideal goals for public health, the amount detected, the usual sources of such contamination, footnotes explaining our findings, and a key to units of measurement.

## 2008 Water Quality Data

**-Definition of Terms-**

**ppm** = parts per million, or milligrams per liter (mg/l)

**ppb** = parts per billion, or micrograms per liter (µg/l)

**pCi/L** = pico Curies per Liter,

**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.*

**Maximum Contaminant Level (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.*

**Level Found:** *This column represents an average of sample result data collected during the CCR calendar year. In some cases, it may represent a single sample if only one sample was collected.*

**Range of Detections:** *This column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year.*

**Date of Sample:** *If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the Consumer Confidence Report calendar year.*

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

**Treatment Technique (TT):** *A required process intended to reduce the level of a contaminant in drinking water.*

**nd:** *Not detectable at testing limits. n/a:* *Not applicable*

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

**Maximum Residual Disinfectant Level Goal (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.*

### Detected Contaminants

Contaminant (unit of measurement) Typical Source of Contaminant	MCLG	MCL	Level found	Range of detections	Violation
<b><u>Inorganic Contaminants</u></b>					
ARSENIC (ppb) Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.	n/a	10	1	1-1	
BARIUM (ppm) Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.	2	2	0..13	0.13-0.13	
COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	1.3	AL=1.3	0.036	0 exceeding AL	
Iron (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	0	1	1	1-1	
Manganese (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	150	150	47	47-47	
NITRATE (as N) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	.10	10	0.30	0.3-0.3	
NITRITE (as N) (ppm) Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.	1	1	0.22	0.22-0.22	

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Level found</i>	<i>Range of detections</i>	<i>Violation</i>
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### **Disinfectants\Disinfection By-Products**

TTHMs [TOTAL TRIHALOMETHANES] (ppb) By-product of drinking water chlorination.	n/a	80	2	2.1-2.1	
CHLORINE (ppm) Water additive used to control microbes	MRDLG=4	MRDL=4	0.3	0.2-0.3	

### **Radioactive Contaminants**

Combined Radium (pCi/L) Erosion of naturally occurring deposits;	0	5	0.8	0.8	
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### **State Regulated Contaminants**

** SODIUM (ppm) Erosion of naturally occurring deposits; Used as water softener.	n/a	n/a	30	N/A	
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#### **Unit of Measurement**

ppm - Parts per million, or milligrams per liter

ppb - Parts per billion, or micrograms per liter

pCi/L – picocuries per Liter

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### **Former Chanute Air Force Base**

#### **Detected Contaminants**

<i>Contaminant (unit of measurement) Typical Source of Contaminant</i>	<i>MCLG</i>	<i>MCL</i>	<i>Level found</i>	<i>Range of detections</i>	<i>Violation</i>
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### **Inorganic Contaminants**

COPPER (ppm) Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.	1.3	AL=1.3	0.215	0 exceeding AL	
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### **Disinfectants\Disinfection By-Products**

Chlorine (ppm) Water additive used to control microbes.	MRDLG =4	MRDL=4	1.4	N/A	
TTHMs [TOTAL TRIHALOMETHANES] (ppb) By-product of drinking water chlorination.	n/a	80	1.4	N/A	

### **Water-Quality Table Footnotes**

#### **UNREGULATED CONTAMINANTS:**

\* 0 exceeding AL. 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 at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791)

\*\* 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 the level is greater than 20 mg/l , and you are on a sodium restricted diet, you should consult a physician.

## Other Monitoring

In addition to the items listed in the previous table, our water system tests for hundreds of additional substances and microscopic organisms to make certain our water is safe and of high quality. If you are interested in a more detailed report, contact Peter Passarelli at the Village's Department of Public Works at (217) 892-2178.

## Additional Information

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The Village of Rantoul does not test for Cryptosporidium. This parasite can cause outbreaks of intestinal disease, but scientists have not yet determined the best testing methods, or the levels at which a public health danger occurs. Because the

Village's source of water is ground water not directly influenced by surface water sources, Cryptosporidium does not pose a risk to our drinking water. Therefore, the Village does not test for it at this time.

## Required Additional Health Information

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To ensure that tap water is safe to drink, EPA prescribes limits on the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water. 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 Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

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 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 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, storm water runoff, and residential uses. (D) Organic chemical contaminants, including synthetic and volatile organics, 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, 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 is 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 are available from the Safe

Drinking Water Hotline (800-426-4791).

## **Questions?**

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For more information, please contact the  
Village of Rantoul's Public Works Department at  
(217) 892-2178.

You can learn more about the Village of  
Rantoul water system at **[www.myrantoul.com](http://www.myrantoul.com)**