Village of Carpentersville
Annual Drinking Water
Quality Report 2003

IL0890200

For the period of January 1 to December 31, 2003

This report is intended to provide you with important information about your drinking water and the efforts made by the Carpentersville Water Department to provide safe drinking water. The source of drinking water used by Carpentersville is Groundwater.

If you have any questions about this report please contact Dean Gorter Monday through Friday from 7:00am to 3:00pm at (847) 551-3492. Concerns regarding the Carpentersville Water System can be addressed at village board meetings. Meetings are held at 7:30 pm on the first and third Tuesdays of each month, at the Carpentersville Village Hall 1200 Besinger Drive.

Este informe contiene informacion muy importante sobre el agua que usted bebe. Traduzcalo o hable 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.

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.

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.

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).

Source Water Assessment Availability

To determine Carpentersville's susceptibility to groundwater contamination, the following document was reviewed: a Well Site Survey, published in 1990 by the Illinois EPA. Based on the information obtained in this document, there are 3 potential sources of groundwater contamination that could pose a hazard to groundwater utilized by Carpentersville Community Water Supply. These include 1auto repair shop, 1store/sales and 1 below ground fuel storage tanks. Information provided by the Carpentersville Community Water Supply indicates the following potential sources listed in the table are currently inactive (below ground storage of petroleum has been removed): Map Code #00916,00917 and 00918. In addition, information provided by the Leaking Underground Storage Tank and Remedial project Management Sections of Illinois EPA indicated sites with on-going remediation that might be of concern.

Source Water Assessment Availability (continued)

Based upon this information, the Illinois EPA has determined that the Carpentersville Community Water Supply's source is susceptible to contamination. The Illinois EPA is in the process of delineating 5-year recharge area calculations for Carpentersville's wells. The land within the areas around the wells was analyzed as part of this susceptibility determination. This land includes open space, residential, and commercial properties. The Illinois Environmental Protection Act provides minimum protection zones of 400 feet for Carpentersville's wells. These minimum protection zones are regulated by the Illinois EPA. To further reduce the risk to the source water, a maximum protection zone may be established, 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.

To further minimize the risk to the village's groundwater supply, the Illinois EPA recommends the following additional activities to be considered. First, the water supply staff may wish to conduct contingency planning. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a community will minimize their risk of being without safe or adequate water. Second, the water supply staff is encouraged to review their cross connection control ordinance 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. Finally, the Illinois EPA recommends that the village investigate additional source water protection management options to address the land use within the well's recharge area, once delineated.

To further reduce the risk to source water, Carpentersville may wish to implement a wellhead protection program, which includes the proper abandonment of potential routes of groundwater contamination within the recharge area, once determined, management of potential sources of potential sources of contamination and correction of any sanitary defects that might be present at the water treatment facility. This effort may result in the community water supply receiving a special exception from the Illinois EPA, which allows a reduction in monitoring and laboratory analysis costs.

Regulated Contaminants Detected in 2003 (collected in 2003 unless otherwise noted)

Lead and Copper

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	Lead 90th percentile	# sites over	Copper MCLG	Copper Action	Copper 90th	# sites over Copper AL	Likely source of contaminant
0 ppb	15 ppb	7ppb	0	1.3 ppm	1.3ppm	0.34ppm	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.

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

ug/l: 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 average of monthly samples.

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. MRDLG's allow for a margin of safety.

Regulated	Highest Level	Range of Levels	Unit of measurement	MCLG	MCL	Violation?	Likely source of contaminant
Disinfectants & Disinfection By-products							
TTHMs (Total Trihalomethanes)	27	27.4-27.4	ppb	n/a	80*	No	By-product of drinking water chlorination

MCL Statement: The maximum contaminant level (MCL) for TTHM and HAA is 80 ppm and 60 ppm respectively and is currently only applicable to surface water supplies that serve 10,000 or more people. These MCL's will become effective 01/01/2004 for all groundwater supplies and surface supplies serving less than 10,000 people. Until 01/01/2004, surface water supplies serving less than 10,000 people, any size water supply that purchased from a surface water source, and groundwater supplies serving more than 10,000 people must meet a state imposed TTHM MCL of 10 ppm. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their livers, kidneys, or central nervous systems, and may increased risk of getting cancer.

Our water system was required to monitor for the contaminants required under the Unregulated Contaminant Rule (UCMR). Results maybe obtained by calling the contact listed on the first page of this report.