

Village of Cary Water Quality Consumer Confidence Report

The Village of Cary is committed to providing the highest quality drinking water to its 17,220 residents and 500+ businesses. Our water is sampled frequently according to strict Environmental Protection Agency (EPA) regulations. **The Village of Cary Had No Water Quality Standard Violations During the 2005 Calendar Year. Please contact Kevin Sullivan, of the Cary Public Works Department, at (847) 639-0003 if you have additional questions.**

Sources of Drinking Water

Sources of drinking water include rivers, lakes, streams, ponds, reservoirs, springs, and groundwater wells. Microbial contaminants, Inorganic contaminants, pesticides and herbicides, organic chemical contaminants, and radioactive contaminants may all be present in source water. In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminant's 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.

Other Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminant's does not necessarily indicate that water poses a health risk. More information about contaminant's and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline **(1-800-426-4791)**. 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 USEPA's Safe Drinking Water Hotline **(1-800-426-4791)**.

Source Water Assessment Summary

The Village of Cary (Facility Number 1110100) utilizes nine active community water supply wells. Wells #3, #4, #6, #8, #9, #10, #11, #12, and #13 (Illinois EPA #20138, #20139, #20141, #20142, #00306, #20144, #00705, #00952, #01428 respectively) produce approximately 1.7 million gallons per day delivered to 5,800 service connections and serve an estimated population of 17,220 individuals in Cary. To determine Cary's susceptibility to groundwater contamination, the Illinois EPA's Well Site Survey, published in 1989, and Baxter and Woodman's Groundwater Protection Needs Assessment, first published in 1992 and revised in 1999, were reviewed. During the survey of Cary's source water protection area, potential sources, routes, or possible problem sites within the 200 to 400 foot minimum setback zones, 1,000 foot maximum setback zones, and recharge areas were recorded. No sources are located within any of the minimum setback zones of Cary's wells. There are four sources located in the proposed maximum setback zone around wells #8 and #9. There are also four sources located in the proposed maximum setback zone around well #6. Within the recharge areas, two sources are located in the recharge area for well #10, #11, and #12. Numerous sources were located in the recharge area for well #3, #8, and #9. The Illinois EPA considers the source water of this facility to be susceptible to contamination. This determination is based on a number of criteria including monitoring conducted at the entry point to the distribution system, the available hydrogeologic data on the wells, and the land-use activities in the recharge area of the well. The Illinois Environmental Protection Act established minimum protection zones of either 200 or 400 feet for Cary's active community water supply wells. These minimum protection zones are regulated by the Illinois EPA. In addition, as part of Baxter and Woodman's Groundwater Protection Needs Assessment, recharge areas for well #3, #8, #9, #10, and #12 have been delineated. A recharge area is the geographic area surrounding a well or well field providing potable water to a community water supply as modeled using computer software to determine a five-year time of travel. To further minimize the risk to the Village's water supply, the Illinois EPA recommends that the following activities be assessed. First, the supply may wish to petition the Village of Cary to enact a maximum setback zone ordinance. These ordinances are authorized by the Illinois Environmental Protection Act and allow county and municipal officials the opportunity to provide additional protection up to 1,000 feet from their wells. Second, the Illinois EPA recommends that Cary adopt a wellhead protection plan to reduce the risk of contamination to the water supply. Third, the Village of Cary should establish a regulated recharge area and develop and implement a recharge area management plan. However, this would require a cooperative effort with other local political bodies because the recharge area around well #10, #11, and #12 extends beyond the Village of Cary corporate limits and into McHenry County, Algonquin, and Lake in the Hills. Fourth, the supply should explore the options of either properly abandoning inactive well #5 or retrofitting it for use as a source of water. Inactive wells that are not properly abandoned (filled and sealed) can act as direct conduits into the aquifer which may allow surficial contaminant's to enter the water supply and are considered "potential routes" of contamination under the Environmental Protection Act.

2005 Water Quality Data

Detectable Compounds & Contaminants

The Village of Cary Had No Water Quality Standard Violations during the 2005 Calendar Year

Definitions: **CCR:** Consumer Confidence Report (i.e. this report). **MCLG:** Maximum contaminant level goal, or 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. **MCL:** Maximum contaminant level, or 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.

Abbreviations: **nd** – not detectable at testing limits. **n/a:** not applicable. **ppb:** parts per billion. **ppm:** parts per million. **pCi/l:** Pico curies per liter, used to measure radioactivity. In most cases, the **Level Found** column represents an average of sample result data collected during the CCR calendar year. The **Range of Detections** column represents a range of individual sample results, from lowest to highest that were collected during the CCR calendar year. If a date appears in the **Date of Sample** 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 CCR calendar year. In some cases, if a contaminant is not detected in a water supply, monitoring can be reduced to once every three to six years. **TTHMs:** Total Trihalomethanes. **NTU:** Nephelometric Turbidity Unit, used to measure cloudiness in drinking water. **TT:** Treatment Technique or a required process intended to reduce the level of a contaminant in drinking water. **AL:** Action Level, the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.

Unit of Measurement
 ppm – Parts per million, or milligrams per liter
 ppb – Parts per billion, or micrograms per liter
 pCi/l –Pico curies per liter, used to measure

2005 WATER QUALITY DATA DETECTED CONTAMINANT'S

	MCLG	MCL	Level Found	# Sites over AL	Range of Detections	Date of Sample	90th %	Typical Sources of Compound/Contaminant's
STATE REGULATED CONTAMINANT'S								
Sodium (ppm)	n/a	n/a	93	n/a	17.000-93.000	11/12/03	n/a	Erosion of naturally occurring deposits; Used as water softener.
Iron (ppb)	n/a	1,000	210	n/a	0-210.000	11/12/03	n/a	Erosion of naturally occurring deposits.
DETECTED INORGANIC COMPOUNDS								
Copper (ppm)	1.3	AL=1.3	n/a	0	n/a	12/31/05	.17 ppm	Corrosion of household plumbing systems; Erosion of natural deposits.
Lead (ppb)*	0	AL=15	n/a	0	n/a	12/31/05	5.8 ppb	Corrosion of household plumbing systems; Erosion of natural deposits.
Barium (ppm)	2	2	1.61	n/a	0.684-1.61	06/08/05	n/a	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	2.09	n/a	0.94-2.09	11/12/03	n/a	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nickel (ppb)	n/a	n/a	26	n/a	26.0-26.0	11/12/03		Erosion of natural deposits; Leaching.
RADIOACTIVE CONTAMINANT'S								
Combined Radium Alpha Emitters (pCi/l)	0	5	4.8	n/a	0.5-4.8	11/01/05	n/a	Erosion of natural deposits
	0	15	2.5	n/a	0-2.5	11/01/05	n/a	Erosion of natural deposits.
VOLATILE ORGANIC CONTAMINANT'S								
Carbon Tetrachloride (ppb)	0	5	0.61	n/a	0-0.61	07/19/05	n/a	Discharge from chemical plants and other industrial activities.
DISINFECTION/DISINFECTANT BY-PRODUCTS								
TTHM's (ppb) [Total Trihalomethanes]	n/a	80*	0	n/a	n/a	07/05/05	n/a	By-Product of Drinking water chlorination.
HAA5 (ppb) [Total Haloacetic Acids]	n/a	60*	0	n/a	n/a	07/05/05	n/a	By-Product of Drinking water chlorination.

There is not a state of federal MCL for sodium. Monitoring is required to provide information to consumer and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water. *MCL Statement - The maximum contaminant level (MCL) for TTHM and HAA5 if 80 ppb and 60 ppb respectively and is currently only applicable to surface water that serve 10,000 or more people. These MCLs will become effective 01/01/04 for water supplies and surface supplies serving less than 10,000 people. Until 01/01/04, surface water supplies serving less than 10,000 people, any size water supply that purchase from a surface water source, and groundwater supplies serving more than 10,000 have a state imposed TTHM MCL of 100 ppb. Some people who drink water containing trihalomethanes in excess of the MCL over many years experience problems with their liver, kidneys, or central nervous systems, and may have increased risk of getting cancer.