

ANNUAL
WATER
QUALITY
REPORT

Water testing performed in 2006

Proudly Presented By:

VILLAGE OF
ALGONQUIN



PWS ID#: 111-00-50

Where Does Algonquin's Water Come From?

The Village of Algonquin currently draws water from nine wells. Three water treatment plants treat the water for public use. Wells 5, 6, 7 and 11 are all shallow wells at less than 150 feet and are located on the east side of the Fox River. These wells provide the water that is treated at Water Treatment Plant 1, which is on Souwanas Drive.

Wells 8 and 9 are shallow wells at less than 220 feet; they provide water to Water Treatment Plant 2, which is on Wynnfield Drive on the west side of the Fox River in Willoughby Farms Subdivision. Well 10 is a deep well (approximately 1,300 feet) that also provides water for treatment at Water Treatment Plant 2.

Wells 13 and 15 are shallow wells at less than 150 feet; they provide water to Water Treatment Plant 3, which is on the corner of Square Barn Road and Academic Drive on the far west side of town. The total combined design capacity from the three water treatment facilities is 12 million gallons per day. The village is in the planning process to expand Water Treatment Plant 3, which will receive water from deep well sources.



Information on the Internet

The U.S. EPA Office of Water (www.epa.gov/watrhome) and the Centers for Disease Control and Prevention (www.cdc.gov) Web sites provide a substantial amount of information on many issues relating to water resources, water conservation and public health. Also, the Illinois Environmental Protection Agency has a Web site (www.epa.state.il.us) that provides complete and current information on water issues in Illinois, including valuable information about our watershed.

Continuing Our Commitment

Once again we proudly present our annual water quality report. This edition covers all testing completed from January 1 through December 31, 2006. We are pleased to tell you that our compliance with all state and federal drinking water laws remains exemplary. As in the past, we are committed to delivering the best quality drinking water. To that end, we remain vigilant in meeting the challenges of source water protection, water conservation, and community education while continuing to serve the needs of all of our water users.

For more information about this report, or for any questions relating to your drinking water, please call Jason Schutz, Chief Water Operator, at (847) 658-2754, ext. 421.



Community Participation

The public is encouraged to attend Algonquin Village Board meetings, which are held at the Village Board Room, 2200 Harnish Drive, Algonquin. The meetings are held on the first and third Tuesday of each month beginning at 8 p.m.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.



Source Water Assessment

Based on information obtained in a well site survey published in 1990 by the Illinois EPA, 12 possible problem sites were identified within the survey area of Algonquin. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediation that may be of concern. The Illinois EPA has determined that Algonquin Community Water Supply's source water is not susceptible to contamination. This determination is based on a number of criteria: monitoring conducted at the wells; monitoring conducted at the entry point to the distribution system; and the available hydrogeologic data on the wells. The Illinois Environmental Protection Act provides minimum protection zones of 200 feet for Algonquin's wells. The Illinois EPA regulates minimum protection zones. To further minimize the risk to Algonquin's groundwater supply, the Illinois EPA recommends that three additional activities be assessed. First, the village may wish 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 a fixed distance, normally 1,000 feet, from their wells. Algonquin has recently adopted its own set wellhead protection zone ordinance. Second, the water supply staff may wish to revisit their contingency planning documents, if available. Contingency planning documents are a primary means to ensure that, through emergency preparedness, a village will minimize its risk of being without safe and adequate water. Algonquin has a current contingency plan document on file. Finally, the water supply staff is encouraged to review their cross-connection control program 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 provided by the village. This past year, the Algonquin Water Department has reviewed and updated our cross-connection control program. This ensures that our water system is receiving the best possible protection from contaminants that could be introduced to our system by backpressure or backsiphoning.

To receive a copy of the source water assessment, contact the Algonquin Village Water Department at (847) 658-2754.

Water Conservation Tips

Water conservation measures are an important first step in protecting our water supply. Such measures not only save the supply of our source water but can also save you money by reducing your water bill. Here are a few suggestions:

Conservation measures you can use inside your home include:

- Fix leaking faucets, pipes, toilets, etc.
- Replace old fixtures; install water-saving devices in faucets, toilets, and appliances.
- Wash only full loads of laundry.
- Do not use the toilet for trash disposal.
- Take shorter showers.



You can conserve outdoors as well:

- Water the lawn and garden in the early morning or evening.
- Use mulch around plants and shrubs.
- Repair leaks in faucets and hoses.

Information on other ways that you can help conserve water can be found at www.epa.gov/safewater/publicoutreach/index.html.

Substances That Might Be in Drinking Water

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

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, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Substances 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, or wildlife;

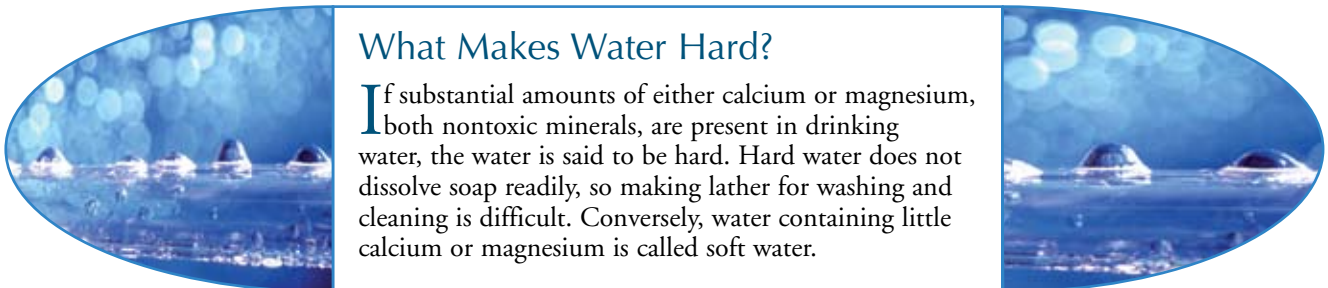
Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;

Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and which may also come from gas stations, urban stormwater runoff, and septic systems;

Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.



About Our Violations

During the month of July 2006, we had an oversight of one monthly coliform sample that was not taken. We have reconfigured our sampling procedures by using a computer generated schedule so this will not be repeated.

We also had two samples that tested positive for total coliform bacteria and two samples that tested positive for fecal coliform bacteria. We have increased chlorine dosages within our treatment process and are in the process of installing our own sample station sites that are strictly used for monthly samples only.

Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. Coliforms were found in more samples than allowed and this was a warning of potential problems. Fecal coliforms and *E. coli* are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes can cause short-term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.



Table Definitions

AL (Action Level): The concentration of a contaminant that triggers treatment or other required actions by the water supply.

MCL (Maximum Contaminant Level): 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.

MCLG (Maximum Contaminant Level Goal): 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.

MRDL (Maximum Residual Disinfectant Level): 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.

MRDLG (Maximum Residual Disinfectant Level Goal): 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.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

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

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

Sampling Results

During the past year we have taken hundreds of water samples in order to determine the presence of any radioactive, biological, inorganic, volatile organic or synthetic organic contaminants. The table below shows only those contaminants that were detected in the water. Although all of the substances listed here are under the Maximum Contaminant Level (MCL), we feel it is important that you know exactly what was detected and how much of the substance was present in the water.

The state allows us to monitor for certain substances less than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

REGULATED SUBSTANCES

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Arsenic (ppb)	2006	10	0	1	NA	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes
Barium (ppm)	2006	2	2	0.1	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2006	[4]	[4]	0.8596	0.5544–0.8596	No	Water additive used to control microbes
Combined Radium (pCi/L)	2006	5	0	1.1	0.3–1.1	No	Erosion of natural deposits
Fecal coliform and E. coli ¹ (# positive samples)	2006	0	0	2	NA	Yes	Human and animal fecal waste
Fluoride (ppm)	2006	4	4	0.65	NA	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA] (ppb)	2006	60	NA	1.4	NA	No	By-product of drinking water disinfection
Nitrate (ppm)	2006	10	10	1.49	ND–1.49	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Nitrite (ppm)	2006	1	1	0.15	ND–0.15	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2006	80	NA	3.4	NA	No	By-product of drinking water chlorination
Total Coliform Bacteria ¹ (# positive samples)	2006	1 positive monthly sample	0	2	NA	Yes	Naturally present in the environment
Total Nitrate + Nitrite (ppm)	2006	10	10	1.54	ND–1.54	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

Tap water samples were collected for lead and copper analyses from 31 homes throughout the service area

SUBSTANCE (UNITS)	YEAR SAMPLED	ACTION LEVEL	MCLG	AMOUNT DETECTED (90TH% TILE)	HOMES ABOVE ACTION LEVEL	VIOLATION	TYPICAL SOURCE
Copper (ppm)	2004	1.3	1.3	0.721	0	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	2004	15	0	15.3	4	No	Corrosion of household plumbing systems; Erosion of natural deposits

OTHER REGULATED SUBSTANCES²

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	AMOUNT DETECTED	RANGE LOW-HIGH	VIOLATION	TYPICAL SOURCE
Iron (ppb)	2006	1,000	NA	180	NA	No	Erosion from naturally occurring deposits
Manganese (ppb)	2006	150	NA	89	NA	No	Erosion of naturally occurring deposits
Sodium (ppm)	2006	NA	NA	27	NA	No	Erosion of naturally occurring deposits; used in water softener regeneration

¹ Occurred in August 2006.

² These contaminants are not currently regulated by the U.S. EPA. However, the state has set MCLs for supplies serving a population of 1000 or more.