



2009

Drinking Water Quality Report

Village of Wauconda, Public Water Supply

This year, as in years past, your tap water was tested according to USEPA and state drinking water health standards. This report attempts to provide an overview of drinking water quality for the 2009 calendar year.

We want you, our valued customers, to be informed about their water quality. If you desire additional information, or if you have any questions about this report or your water system, please contact Rick Kuester at the Department of Public Works at (847) 526-9610. If you would like to learn more, please feel welcome to attend any of our regularly scheduled board meetings. The Village Board meets at 7 P.M. on the 1st and 3rd Tuesday of each month. Meetings take place at the Village Hall, 101 N. Main Street.

Water System Facts

- Groundwater is supplied from four aquifers
- Three iron removal plants
- Two water softening plants
- Four elevated storage tanks
- 69 miles of water main
- 925 fire hydrants
- 5,649 water services
- 503,348,000 gallons of water supplied in 2009
- 1,379,000 average gallons of water supplied per day in 2009
- 1,821,000 highest gallons of water supplied in a single day in 2009

Wauconda's Water Sources and Treatment

The source(s) of the water that you are receiving depends upon which wells we are currently utilizing, system demands, and your location.

Wauconda supplies water from groundwater aquifers using seven wells located within the village limits. These wells pump water from their aquifers to a water treatment plant designed to treat the type of water being received. Water from four of our wells is treated with ion-exchange softening in order to reduce to IEPA drinking water standards the levels of barium and/or gross-alpha emitters and radium. Higher levels of these parameters are often found in deep sandstone formations such as those in northern Illinois. In order to remove excess iron, water at Wells 3, 5 and 6 is treated with iron-removal filtration.

Our water is also treated with chlorine for disinfection purposes, polyphosphate is added for the purpose of lead and copper corrosion control, and where necessary, fluoride is added to comply with state regulations for optimal dental health. Some wells already have an optimal fluoride level.

After water treatment, the water is pumped through our piping system to storage tanks, hydrants, and to your home or place of business.

A source water assessment for our supply was completed by the Illinois EPA. The Agency determined that the Wauconda Community Water Supply's source water was not susceptible to contamination. This determination was based upon a number of criteria including a 1993 well site survey, reviews of water sample analyses and

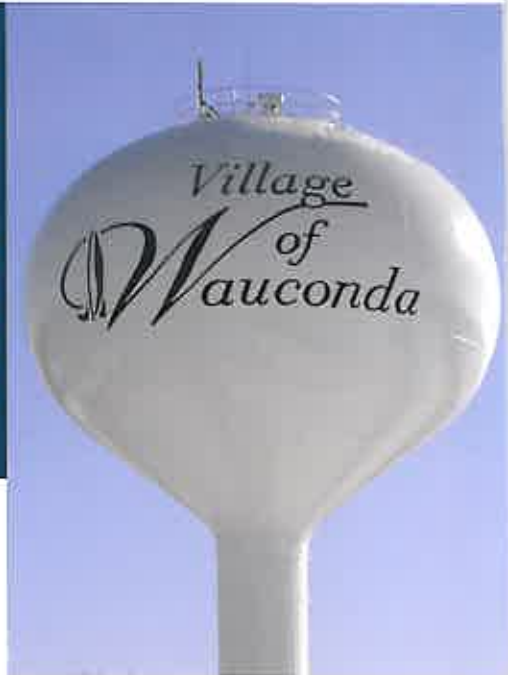
available hydrogeologic data on the wells. A copy of this source water assessment is available at the Public Works facility at 302 Slocum Lake Road. This assessment is also available in summary form on the Internet at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Although vinyl chloride has been detected in some private homeowner wells in our area, vinyl chloride has never been detected in any of the wells serving our public water supply. The Village has taken the proactive step of increasing the monitoring frequency for this parameter beyond what the IEPA requires. Copies of our latest sample results and links to other water quality information are available on the internet at <http://wauconda-il.gov/online/well-reports/>.

Drinking Water and Health Concerns

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 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).



Typical Sources of Possible Contaminants

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 can dissolve naturally occurring minerals and radioactive materials and pick up substances resulting from the presence of animals or human activity. Possible contaminants consist of:

- 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 may 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 may be naturally occurring or be the result of oil and gas production and mining activities.

Water Quality Monitoring Requirements

The type and frequency of monitoring required is determined by the type of source water, size of the system, potential for contamination, and historical results of water analysis. If a compound is not likely to be detected or historically has never been detected, the Illinois EPA may issue a monitoring exception for that compound. Also, some monitoring requirements are specifically applicable to ground water, where as others apply exclusively to surface water.



Table of 2009 Monitoring Results

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that 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. The following table summarizes the results of our water quality analysis for IEPA compliance purposes. Only those contaminants that are subject to monitoring and were detected in compliance monitoring are listed. A listing of non-detected contaminants is available, upon request, at the Public Works facility.

Table of Compliance Monitoring Detections

Contaminant (Units)	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Samples	Typical Sources Of Contamination
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Disinfectants & Disinfection By-Products

Chlorine (ppm free available chlorine)	MRDLG = 4	MRDL = 4	.3	.23-.41	None	2009	Water additive used to control microbes.
Total trihalomethanes (ppb)	n/a	80	4.17	n/a	None	2007	By product of drinking water chlorination.

Inorganic Contaminants

Barium (ppm)	2	2	.896	.065-.896	None	2008 2009	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride (ppm)	4	4	1.07	.903-1.07	None	2008 2009	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories.

Nitrate and Nitrite

Nitrate (measured as nitrogen, ppm)	10	10	.063	ND-.063	None	2009	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (measured as nitrogen, ppm)	1	1	.020	ND-.020	None	2008 2009	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.

Lead and Copper

Lead (ppb)	ALG = 0	AL=15	10.5	2 exceeding AL	None	2009	Corrosion of household plumbing systems. Erosion of natural deposits.
Copper (ppm)	ALG = 1.3	AL=1.3	.940	0 exceeding AL	None	2009	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives.

Radioactive Contaminants

Beta/Photon Emitters (pCi/L)	0	50 (footnote)	10.6	10.6-10.6	None	2006	Decay of natural and man-made deposits
Combined Radium (pCi/L)	0	5	3.34	.43-3.34	None	2009	Erosion of natural deposits
Gross Alpha (pCi/L)	0	15	17.5	.77-17.5	None	2009	Erosion of natural deposits
Uranium (ppb)	0	30	1.192	1.192-1.192	None	2008	Erosion of natural deposits

State Regulated Contaminants

Iron (ppb)	n/a	1000	190	ND-190	None	2008 2009	Erosion from naturally occurring deposits
Manganese (ppb)	n/a	150	19.4	ND-19.4	None	2008 2009	Erosion from naturally occurring deposits
Sodium (ppm)	n/a	n/a	106.0	9.2-106.0	None	2008 2009	Erosion of naturally occurring deposits; Used as water softener.

Unregulated Contaminants

Sulfate (ppm)	n/a	n/a	31.2	ND - 31.2	None	2008 2009	Erosion from naturally occurring deposits.
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Table Footnotes (See also Table Abbreviations & Definitions on back.)

Beta/Photon Emitters
The MCL for beta particles is 4 mrem/year. EPA considers 50 pCi/l to be a level of concern for beta particles.

Chlorine
For table purposes, the "Levels Found" is for free chlorine residuals. Total chlorine residuals are higher.

Date of Samples Footnotes
For many contaminants, the IEPA requires monitoring less than yearly because their concentrations do not change frequently. The data presented for any given contaminant, if not from 2009, is from the most recent monitoring period prior to 2009. If two or more years are shown, it is because the results combine the most recent compliance results from multiple entry points collected in multiple years.

Fluoride
The water supply is required to add fluoride to promote strong teeth. The Illinois

Dept. of Public Health recommends an optimal fluoride range of .9 PPM to 1.2 PPM. The Wauconda Water Dept. recently received a commendation from the Illinois Dept. of Public Health for excellence in maintaining optimal fluoride levels for 2003 through 2009. Table results are from IOC compliance samples.

Iron and Manganese

These contaminants are not currently regulated by USEPA. However, the state has set MCLs for iron and manganese for supplies serving a population of 1,000 or more.

Lead

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 are responsible for providing high quality drinking water, but 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 at <http://www.epa.gov/safewater/lead/>.

Sodium

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 you are on a sodium-restricted diet, you should consult a physician about this level of sodium in the water.

Unregulated Contaminants

A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

2009 JULIE Locates and Utility Damage Prevention

As the owner of underground infrastructure, the Village of Wauconda is a member of the JULIE state-wide one-call notification system. Anyone planning to dig is required by Illinois law to call JULIE who forwards the location requests for our area to us via e-mail. Utilities have 48 hours (excluding weekends and holidays) to mark their facilities for routine excavations and 2 hours for emergency excavations. We respond by marking Village-owned underground water, sanitary and storm sewer lines, street light cables, as well as underground electric and control wiring at our lift stations, water treatment plants, and water reclamation plant. In 2009, the Village received 3,385 JULIE locate requests. Our prompt and accurate response is important for the prevention of costly utility damage and interruptions in service. For additional information on JULIE, visit www.illinois1call.com. Before you dig, please call JULIE at 800-892-0123.



Table Abbreviations and Definitions

The table contains scientific terms and measures, some of which may require explanation.

- Action Level (AL): The concentration of a contaminant that triggers treatment or other required actions by the water supply.
- Action Level Goal (ALG): The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
- Level Found: In most cases, this is the level of a contaminant found from the entry point (water treatment plant) with the highest results. In some cases it represents an average of results from that entry point. For lead and copper, this level is the 90th percentile value from our most recent first-draw sample monitoring in a select group of 60 homes. For chlorine, it is the highest running yearly average of monthly averages for residuals measured during the collection of routine microbiological distribution system samples.
- 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.
- 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 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.
- mrem/year: millirems per year (a measure of radiation absorbed by the body)
- n/a: Not applicable.
- Not Detectable (ND): Not detectable at testing limits.
- pCi/L: picocuries per liter (a measure of radioactivity)
- ppb: parts per billion or micrograms per litre - or one ounce in 7,350,000 gallons of water.
- ppm: parts per million or milligrams per litre - or one ounce in 7,350 gallons of water.
- Range of Detections: Except for lead and copper or chlorine, this is the range from lowest to highest of all individual samples collected during 2009 or during the most recent compliance monitoring prior to 2009. For chlorine, it is the range of monthly averages for residuals measured during the collection of routine microbiological distribution system samples.