

# City of Batavia Annual Drinking Water Quality Report for Calendar Year 2009

This report is intended to provide you with important information about your drinking water and the efforts made by the Batavia water system to provide safe drinking water. Included are drinking water facts, information on violations (if applicable), and contaminants detected in the drinking water supply during calendar year 2009. If you would like to learn more, please feel welcome to attend any of our regularly scheduled meetings. The meeting schedule can be found on the City's website: [www.cityofbatavia.net](http://www.cityofbatavia.net). This report is updated each year. If you need help understanding this report or have questions, please contact John Dillon at 630-454-2453 or [jdillon@cityofbatavia.net](mailto:jdillon@cityofbatavia.net). *Este informe contiene información muy importante sobre el agua que usted bebe. Tradúzcalo ó hable con alguien que lo entienda bien.*

## **Sources 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 pick up substances resulting from the presence of animals or from human activity.

The City of Batavia drinking water is from a combination of shallow and deep wells. All water is pumped to the City's water treatment plant where the shallow well water is filtered for the removal of iron, manganese and hydrogen sulfide and is then chlorinated, fluoridated and treated with a corrosion inhibitor before being blended in the ground storage reservoir. The deep well water is processed at the treatment plant utilizing an HMO adsorption process for the removal of the radium. All water customers receive the same blended water supply.

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.

## **Other Facts about Drinking 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 EPA's Safe Drinking Water Hotline at (800) 426-4791.

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 with organ transplants, persons 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 Assessments**

Source water protection (SWP) is a proactive approach to protecting our critical sources of public water supply and assuring that the best source of water is being utilized to serve the public. It involves implementation of pollution prevention practices to protect the water quality in a watershed or wellhead protection area serving a public water supply. Along with treatment, it establishes a multi-barrier approach to assuring clean and safe drinking water to the citizens of Illinois. The Illinois EPA has implemented a source water assessment program (SWAP) to assist with wellhead and watershed protection of public drinking water supplies. Batavia's Source Water Assessment has been completed by the Illinois EPA. A copy is available at the City of Batavia Public Works Building at 200 N. Raddant Rd., Batavia, IL. To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility to Contamination Determination; and documentation/recommendation of Source Water Protection Efforts, you may access the Illinois EPA website at <http://www.epa.state.il.us/cgi-bin/wp/swap-fact-sheets.pl>.

Based on information obtained in a Well Site Survey published in 1990 by the Illinois EPA, sixteen potential sources or possible problem sites were identified within the survey area of Batavia's wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of the Illinois EPA indicated several additional sites with ongoing remediations which may be of concern. The Illinois EPA has determined that the Batavia Community Water Supply's source water is not susceptible to 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 on the wells. Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that the Batavia Community Water Supply is not vulnerable to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the community's wells are properly constructed with sound integrity and proper site conditions; a hydrogeologic barrier exists which prevents pathogen movement; all potential routes and sanitary defects have been mitigated such that the source water is adequately protected; monitoring data did not indicate a history of disease outbreak; and the sanitary survey of the water supply did not

indicate a viral contamination threat. Because the community's wells are constructed in a confined aquifer, which should prevent the movement of pathogens into the wells, well hydraulics were not considered to be a significant factor in the susceptibility determination. Hence, well hydraulics were not evaluated for this groundwater supply.

The following tables summarize contaminants detected in your drinking water supply for the year 2009.

MCL	Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the Maximum Contaminant Level Goal 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 disinfectant allowed in drinking water.
MRDLG	Maximum Residual Disinfectant Level Goal: 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.
N/A	Not Applicable
pCi/L	picocuries per liter ( a measure of radioactivity)
ppb	parts per billion or micrograms per liter (ug/L) - or one ounce in 7,350,000 gallons of water.
ppm	parts per million or milligrams per liter (mg/L) - or one ounce in 7,350 gallons of water.

### Lead and Copper

	Date Sampled	MCLG	Action Level (AL)	90 <sup>th</sup> Percentile	# Sites Over AL	Units	Violation	Likely Source of Contamination
Copper	2009	1.3	1.3	0.411	0	ppm	No	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead	2009	0	15	0	2	ppb	No	Corrosion of household plumbing systems; erosion of natural deposits.

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. The City of Batavia is responsible for providing high quality drinking water, but 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 or at <http://www.epa.gov/safewater/lead>.

### Regulated Contaminants

Disinfectants & Disinfection Byproducts	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source of Contamination
Chloramines	2009	1	0.2 - 1	MRDLG = 4	MRDL = 4	ppm	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	2009	2	2.04 – 2.04	NA	60	ppb	No	By-product of drinking water chlorination.
Total Trilomethanes (TThm)	2009	19	18.85 – 18.85	NA	80	ppb	No	By-product of drinking water chlorination.

### Inorganic Contaminants

Arsenic	2008	2	0 - 2	0	10	ppb	N	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production waste.
Barium	2008	.2	0.044 – 0.2	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	2008	1	0.73 – 1	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Iron	2008	0.74	0.059 – 0.74	NA	1.0	ppm	No	Erosion from naturally occurring deposits.
Manganese	2008	4	0 – 4	150	150	ppb	No	Erosion of natural deposits.
Nitrate (measured as nitrogen)	2009	0.34	0.34 – 0.34	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Selenium	2008	1	0 – 1	50	50	ppb	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
Sodium	2008	32	25 – 32			ppm	No	Erosion from naturally occurring deposits: Used in water softener regeneration.

### Radioactive Contaminants

Combined Radium 226/228	2009	4.9	4.9 - 4.9	0	5	pCi/L	No	Erosion of natural deposits
Gross Alpha (excluding radon and uranium)	2009	5.6	5.6 – 5.6	0	15	pCi/L	No	Erosion of natural deposits
Uranium	2006	0.339422	0.19221-0.339422	0	30	ug/l	No	Erosion of natural deposits