Source of Drinking Water

The sources of drinking water (both tap water and bottled) 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 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).

Village of Bethalto
Water Dept.
101 South Prairie
Bethalto, IL 62010

Village of Bethalto, Illinois Water Department

Year 2013 Annual Water Quality Report

For the period
January 1 to
December 31, 2012.

This year, as in years past, your tap water met all USEPA and state drinking water health standards. Our system vigilantly safeguards its groundwater supply, and we are able to report that the department had no violation of a contaminant level or of any other water quality standard in the previous year. This report summarizes the quality of water we provided last year, including details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. We are committed to providing you with information because informed customers are our best allies. If you have any questions about this report or concerning your water system, please contact our treatment plant operator, Kenny Ragan at 259-5941. We want our valued customers to be informed about their water quality. If you would like to learn more, please feel free to attend any of our regularly scheduled water board meetings which are held the first Monday of each month at 7:00PM.

To view a summary version of the completed Source Water Assessments, including: Importance of Source Water; Susceptibility of 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.

The treatment process consists of prechlorination and aeration to oxidize the Iron and the addition of Potassium Permanganate to oxidize the manganese. Pressure filtration and ion exchange softening to remove the iron, manganese and hardness in the water. We then add chlorine for disinfection, fluoridine for dental development and phosphate for corrosion control.

*** Este informe contiene información muy importante sobre el agua que ested bebe. Tradúzcalo ó hable con alguien que lo entienda bien.**

Lead and Copper

Definitions:

Action Level Goal (AGL): The level of contaminant in drinking water below which there in no known or expected risk health. ALG's allow for a margin of safety.
Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

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 and 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.gove/safewater/lead

Lead & Copper	Date Sampled	MCLG	Action Level (AL)	90th Percentile	# Sites Over AL	Units	Violation	Likely Source Of Contaminant
Copper	08/29/2011	1.3	1.3	0.79	0	ppm	No	Erosion of natural deposits; Leaching from wood preservatives; Corrosion of household plumbing systems.
Lead	08/29/2011	0	15	3.5	0	ppm	No	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 Maxmium 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.
ppm: milligrams per litre or parts per million-or one ounce in 7,350 gallons of water.
ppb: micrograms per litre 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 annual average of monthly samples.
Maximum Residual Disinfectant Level (MRDL): The highest level of disinfectant allowed in drinking water.
Maximum Residual Disinfectant Level (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 Contaminants

Disinfectants & Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Chlorine	12/31/2012	0.70	0.6075 - 0.9275	MRDLG=4	MRDL=4	ppm	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	08/20/2012	3.2	3.2 - 3.2	No goal for the total	60	ppb	No	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in future.

Total Trihalomethanes	08/20/2012	20	19 - 20.3	No goal for the total	80	ppb	No	By-product of drinking water disinfection

Not all sample results may have been used for calculating the Highest Level Detected because some results may be part of an evaluation to determine where compliance sampling should occur in future.

Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Arsenic	11/13/2012	1.2	1.2 - 1.2	0	10	ppb	No	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	11/13/2012	0.038	0.038 - 0.038	2	2	ppm	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	11/13/2012	1.07	1.07 - 1.07	4	4.0	ppm	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	11/13/2012	20	20 - 20	150	150	ppb	No	Not currently regulated by USEPA, but state regulates. Erosion of natural deposits.
Nitrate (Measured as Nitrogen)	06/13/2012	1	1.2 - 1.2	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Sodium	11/13/2012	160	32 - 160			ppm	No	Erosion of naturally occurring deposits: Used in water softener regeneration
Zinc	11/13/2012	0.014	0.014 - 0.014	5	5	ppm	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occurring; discharge from metal
Radioactive Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contaminant
Gross Alpha excluding Radon & Uranium	5/11/2010	3.65	3.65-3.65	0	15	pCi/L	No	Erosion of natural deposits
Volatile Organic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Likely Source Of Contamination
Trichloroethylene	6/13/2012	1	0 - 0.64	0	5	ppb	No	Discharge from metal degreasing sites and other factories.

Source Water Assessment Availability

When available, a Source Water Assessment summary is included below for your convenience.

Based on information obtained in a Well Site Survey, published in 1991 by the Illinois EPA and a Source Water Protection Plan prepared by the Village of Bethalto and published by the Illinois Rural Water Association, 27 potential sources could pose a hazard to groundwater utilized by the Bethalto community water supply wells. Furthermore, information provided by the Leaking Underground Storage Tank and Remedial Project Management Sections of Illinois EPA indicated several additional sites with on-going remediations that may be of concern.

Based upon the information presented above, the Illinois EPA has determined that the Bethalto Community Water Supply's source water has a high susceptibility to VOC contamination. However, as a result of monitoring conducted at the wells and entry point to the distribution system, the land use activities and source water protection initiatives (refer to the following section of this report) by the village, Bethalto's Community Water Supply's source water has a low susceptibility to IOC and SOC contamination.

Furthermore, in anticipation of the U.S. EPA's proposed Ground Water Rule, the Illinois EPA has determined that Bethalto's community water supply wells have a low susceptibility 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; 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. However, having stated this, the "[U.S.] EPA is proposing to require States to identify systems in karst, gravel and fractured rock aquifer systems as sensitive and these systems must perform routine source water monitoring". Because the community's wells are constructed in an unconfined sand and gravel aquifer, the Illinois EPA evaluated the well hydraulics associated with Bethalto's well field.

Wells #6 thru #12 have a significant amount of overburden, the wells are approximately 90 feet deep with the last 20 feet open to the aquifer, above the portion of the aquifer contributing a significant quantity of groundwater to the screened interval. This should provide an adequate degree of filtration to prevent the movement of pathogens into the wells. The Illinois Environmental Protection Act provides minimum protection zones of 400 feet for Bethalto's wells. These minimum protection zones are regulated by the Illinois EPA. Well Water Sample Results are available upon request for Shallow Wells #6 thru #12.

In addition, the village enacted a "maximum setback zone" which became effective on January 17, 1992. These ordinances are authorized by the Illinois Environmental Protection Act and allow 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 that three addition activities be considered. First, the water supply staff may wish to revisit their contingency planning documents. Contingency planning documents are a primary means to ensure that, through preparedness, a community will minimize their risk of being without safe and adequate water. Second, 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 community. Third, the village is encouraged to consider overlay zoning a recharge area regulatory proposal to further protect their source water area.

Note: The state requires monitoring of certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Therefore, some of this data may be more than one year old.