## 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 byproducts 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

'illage of Bethalto, Illinois

Water Department

# Year 2023 Annual Water Quality Report Report In the period January 1 to December 31,2022

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

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 Sodium 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

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.

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 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 Hotline or at: http://www.epa.gove/safewater/lead 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 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

Corrosion of household plumbing systems; Erosion of natural deposits.	No.	ppb	0	1.1	15	0	08/25/2020	Lend
Erosion of natural deposits: Leaching from wood preservatives; Corrusion of household plumbing systems.	No.	ppm	0	0.57	1.3	1.3	08/25/2020	Copper
Likely Source Of Contaminant	Violation	Units	# Sites Over AL	90th Percentile	Action Level (AL)	MCLG	Date Sampled	Lead & Copper

Water Quality Test Results

Water Quality Test Results

Machinens: 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 (AVCLO): The level of a contaminant in drinking water below which there is no known or expected risk to beath. MCLO: a blow for a margin of safety.

ppn: militgrams per litre or parts per million-or one oance in 7,250 gallons of water.

ppl: micrograms per litre or parts per million-or one oance in 7,250 gallons of water.

Nr. not applicable.

Nr. not applicable.

Avg. Regulatory compliance with some MCLs are based on running annual average of monthly samples.

Auximum Residual Disinfectant Level (MRDL): The bighest 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

By-product of drinking water disinfection	No.	ppb	60	No goal for the total	2.58 - 3.31 No goal for the total	3.31	2022	Haloncetic Acids (HAA5)
Water additive used to control microbes	No	ppm	MRDL=4	MRDLG=4 MRDL=4	0.9 - 1	1	12/31/2022	Chlorine
Likely Source Of Contaminant	Violation	Units	MCL	MCLG	Range of Levels Detected	Highest Level Detected	Collection Date	Disinfectants & Disinfection By-Products

Likely Source Of					Range of Levels	Highest Level	The second secon	
compliance sampling should occur in futur	mine where	luation to deter	rt of an eva	Its may be part of	ed because some resu	hest Level Detecte	d for calculating the High	Not all sample results may have been use
By-product of drinking water disinfection	χ.	ppb	80	No goal for the total	10 - 20.6	20.6	2022	Total Trihalomethanes (TTHM)

Not all sample results may have been use	d for calculating the High	est Level Detected	i because some resul	ts may be pa	rt of an eva	luation to dete	rmine when	Not all samplic 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	10/18/2021	1	1-1	0	10	ppb	No.	Erosion of natural deposits; Runoff from orchards; Runoff from glass and electronics production wastes.
Barium	10/18/2021	0.017	0.017 - 0.017	2	2	ppm	X <sub>0</sub>	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
Fluoride	10/18/2021	0.629	0.629 - 0.629	4	4.0	ppm	N <sub>0</sub>	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Manganese	10/18/2021	6.2	6.2 - 6.2	150	150	ppb	No.	Not currently regulated by USEPA, but state regulates. Erosion of natural deposits.
Nitrate (Measured as Nitrogen)	2022	1	1.1 - 1.1	10	10	ppm	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium	10/18/2021	2.8	2.8 - 2.8	50	50	ppb	No.	Discharge from petroleum and metal refineries. Erosion of natural deposits; Discharge from mines.
Sodium	10/18/2021	200	200 - 200	-		ppm	No	Erosion of naturally occurring deposits: Used in water softener regeneration
Zinc	10/18/2021	0.011	0.011 - 0.011	5	5	ppm	Χ̈́ο	This contaminant is not currently regulated by the USEPA. However, the state regulates. Naturally occuring, 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	2022	3.57	3.57 - 3.57	0	15	DCI/L	No.	Erosion of natural deposits
	An included the second			CONTRACTOR OF THE PARTY OF			ALC: NO PERSON NAMED IN	

Haroacecic Acids (Box)			
Some people who drink water conta	ining haloacetic a	cids in excess o	Some propin who drink water containing haloacetic acids in excess of the MCL over many years may have an increased tisk of getting cancer.
Violation Type	Violation Degin	Violation End	Violation Begin Violation End Violation Explanation
MONITORING, ROUTINE (DBP), MAJOR	08/01/2021	07/31/2022	We failed to test our drinking water for the contaminant and period indicated. Decause of this failure, we cannot be sure of the quality of our drinking water during the period indicated.
Total Tribalomethanes (TTHM)	90		
Some people who drink water containing tribalomethance in excess of nervous systems, and may have an increased risk of getting cancer	ining tribalomethe	spetting cancer.	Goose propie who withis value Containing tribalomethance in oscene of the MCL over many years may experience problems with their liver, kidneys, or central morrow systems, and may have an increased risk of gentling anners.

iolation Type

Violation Begin

Violation End

Violation Explanation

our drinking water for the contaminant and period indicated. Recause of cannot be sure of the quality of our drinking water during the period

## Source Water Assessment Availability

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

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. published by the

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.

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. 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 aguifer 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 defects have been mitigated such that the source water is adequately protected; monitoring 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

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. 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

source prohibitions up to 1,000 feet from their wells. 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

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) connections to either the water treatment plant (for example, at bulk water loading stations) connection system may negate all source water protection initiatives provided by the 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 regulatory proposal to further protect their source water area. community. Third, the village is encouraged to consider overlay zoning a recharge area 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

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.

### Monitoring requirements not met for Bethalto water system IMPORTANT NOTICE ABOUT YOUR DRINKING WATER

Even though this was not an emergency as our customers, you have a right to know what happened and what we will do to correct this situation. Our water system violated the drinking water standards over the past year.

a regular basis. Results of the monitoring are an indicator of whether or not our drinking water meets health standards. During the July 2022 sampling We are required to monitor your drinking water for specific contaminants on period we did not complete our THM & HAA samples in the required sampling period, resulting in a violation

## There is nothing you need to do at this time.

in July but arrived at the Lab August 1st which resulted in a violation. The samples arrived late to the lab for testing they were required to be tested

The THM and HAA samples met the water quality standards when tested

time frame to avoid any other violations. In the future we will make sure that the samples are submitted in the required

618-570-5098 For more information contact Water Plant Operator JIM WILLIAMS at

Please share this information with all other people who drink the water, especially those who may not have reserved this notice of directly (for example, people in paptments, nutsing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or

This notice was sent to you by Bethalto water System ID# IL1190150

Contaminant	Required sampling frequency	Number of samples taken	When all samples should have been taken	When samples were or will be taken
TTHMs	2-Annually	2	July 2022	August 1, 2022
HAA5s	2-Annually	2	July 2022	August 1, 2022