2024 Consumer Confidence Report



Village of Mt. Zion Consumer Confidence Report For 2024

In 1996, the U.S. Congress and the president amended the Safe Drinking Water Act. They added a provision requiring that all community water systems deliver an **annual** water quality report to their customers. This report includes basic information on the source(s) of your water, the levels of any contaminants detected in the water, compliance with other drinking water rules, as well as some brief educational material.

This report is called the "Consumer Confidence Report."

Consumers who are familiar with the basic drinking water information in the CCR will not only help to make informed choices that affect the health of themselves and their families, but they will also consider the challenges of delivering safe drinking water. Educated consumers are more likely to help protect drinking sources and be more understanding of the need to upgrade the treatment facilities that make their drinking water safe.

The Village of Mt. Zion purchases water from the City of Decatur. Although the village has limited authority in producing water quality, the village is still responsible for sampling, monitoring, and maintenance of the water distribution within the village limits. The Mt. Zion Water Department obtains over 30 water samples each month and monitors water quality daily.

At certain times, decisions affecting the water supply are made by the Village of Mt. Zion Board, which meets on the third Monday each month at 5:15 p.m., 1400 Mt. Zion Parkway, Mt. Zion, IL 62549. Information on Board meeting agendas may be obtained by calling the Village Clerk at 217-864-5424 or at www.mtzion.com.

If you have any questions, please contact the Village Administrator at 217-864-5424.

For the year of 2023, your tap water met all other USEPA and State drinking water standards. This report summarizes the quality of water that 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 about your drinking water so that you will be an informed consumer.

Source Water

Our water drinking water is supplied by Lake Decatur and nine groundwater wells. Lake Decatur is 2,880 surface acres in size and is located entirely within the City limits of Decatur. The Sangamon River is the primary source of water for Lake Decatur, which has a drainage area of 926 square miles, 80% of which is used for growing corn and soybeans. When Lake Decatur water levels are low, the City uses a former sand-and-gravel pit near the South Water Treatment Plant and located in Dewitt County to supplement the water supply. Currently, all water in the Village's distribution system flows through the Mt. Zion Pump House located at 1087 Baltimore Avenue. The City of Decatur feeds this pump house from their water tower located on South Franklin Street and a meter at Cannon Park (located at the intersection of Baltimore Avenue and Lost Bridge Road). If you have any questions about the City of Decatur's portion of the report or their procedures with collecting and treating their water, please call Keith Alexander, Water Production Manager, at 217-424-2863 or e-mail at kalexander@decaturil.gov.

Source Water Assessment

The Source water assessment for our water supply has been completed by the Illinois EPA, which is available at https://dataservices.epa.illinois.gov/swap/factsheet.aspx. If you would like a copy of this information, please stop by Village Hall or call our water operator at 217-864-4811. Illinois EPA considers all surface water sources of public water supply to be susceptible to potential pollution problems. Hence the reason for mandatory treatment of all public water supplies in Illinois. Mandatory treatment includes coagulation, sedimentation, filtration and disinfection. Primary sources of pollution in Illinois lakes can include agricultural runoff, land disposal (septic systems) and shoreline erosion. Due to the low geologic sensitivity of the wells and monitoring results, the Illinois EPA does not consider Decatur's wells to be susceptible to volatile organic contaminants (VOCs), synthetic organic contaminants (SOCs) or inorganic contaminants (IOCs). In accordance with Illinois EPA regulations, the wells each have a minimum protection zone of 200 feet.

Under the Clean Water Act Section 319, the U.S. EPA provides grants for the Illinois EPA to finance projects that demonstrate cost-effective solutions to nonpoint source (NPS) problems and promote public knowledge and awareness of NPS pollution. Section 319 projects funded for the Lake Decatur Watershed include the Upper Sangamon River Basin Water Quality Improvement Project and the Nutrient Management Plan Implementation. The Macon County Soil and Water Conservation District and the Agricultural Watershed Institute also administer several water quality improvement projects in the watershed.

Groundwater protection efforts have included Illinois EPA. To further minimize the risk to the city's groundwater supply, the Illinois EPA recommends that three additional activities be considered. First, the water supply staff may wish to revisit their contingency planning documents in order to ensure the plans are kept current, and the water department and emergency response staff are aware of and minimize their risk of being without safe and adequate water. Second, the water supply staff is encouraged to review and sustain their cross connection control program to ensure that it remains current and viable. Cross connections to either the water treatment plant or in the distribution system may negate all source water protection initiatives provided by the community. Finally, the Illinois EPA recommends that the city continue to evaluate

additional source water protection management options to address the regulatory and non-regulatory land use activities within the community wells' recharge area.

How is My Water Treated and Purified?

The treatment process consists of a series of steps. First, raw water is pumped from Lake Decatur to the South Water Treatment Plant. Chlorine dioxide is added to destroy viruses, bacteria and protozoa that may be in the raw water. The water then goes to mixing tanks where aluminum sulfate and calcium hydroxide are added for softening. The addition of these substances causes small particles to adhere to one another (called floc) making them heavy enough to settle into basins from which the floc is removed. Powdered activated carbon is also added for taste and odor control. Fine particles that remain after the basin treatment are removed in the filtration process, which consists of layers of sand and anthracite. After filtration, chlorine is added to maintain the disinfection process through the distribution system. Lastly, a small amount of fluoride is added to prevent dental decay. Water pressure is maintained in the distribution system to prevent the intrusion of any contaminants into our water mains.

Cryptosporidium in Drinking Water

Cryptosporidium is a microbial parasite found in surface water throughout the world. Although filtration removes Cryptosporidium, the most commonly used filtration methods cannot guarantee 100% removal. The monitoring of our raw water and finished water indicates the presence of these organisms only in the raw water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water. Steps taken to reduce this organism from entering Lake Decatur are part of ongoing watershed management programs.

Possible Contaminants

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. 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 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)

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. 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 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.
- <u>Pesticides and herbicides</u>, which may come from a variety of sources such as agriculture, urban storm water runoff and residential uses.
- <u>Organic chemical contaminants</u>, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and may also come from gas stations, urban storm water runoff and septic system
- *Radioactive contaminants*, which may be naturally occurring or be the result of oil and gas production and mining activities.

Special 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 can 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 (1-800-426-4791) or water.epa.gov/drink/hotline.

What Are The Health Effects of 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 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, 1-800-426-4791, or at http://www.epa.gov/safewater/lead.

those contaminants that were detected in the water. The state requires us to monitor for certain substances less often that once per year because the concentrations of these substances do not change frequently. In these cases, 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 tables below show only performing additional tests on our drinking water. UCMR5 benefits the environment and public health by providing the EPA with data on the occurence of contaminants suspected to be in drinking water, in order to the most recent sample data are included, along with the year in which the sample was taken. We participated in the 5th stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR5) program by determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

CITY OF DECATUR'S RESULTS

	N Typical Source	Runoff from herbicide used on row crops	Dischare of drilling wastes; Discharge from metal refineries; Erosion of natural deposits	Water additive used to control microbes	By-product of drinking water disinfection	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories	By-prodet of drinking water disinfection	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits	Erosion of natural occurring deposits, Used in water softener regeneration	Naturally present in the environment	Naturally present in the environment	By-product of drinking water disinfection	Soil runoff	Soil runoff
	VIOLATION	No	N _o	No	No	N _o	No	N ₀	o N	o N	No No	oN No	No	No
	RANGE (LOW-HIGH)	ND-0.56	.00580058	1.0-2.0	0.46-0.71	0.602-0.770	8.8-23.0	0.03-4.30	14-14	NA	1.2-2.4	15.5-87.3	NA	NA
	AMOUNT DETECTED	0.56	0.0058	2	0.71	0.77	16.8	4.3	14	4.2	2.4	59.6	0.14	100%
	MCLG [MRDLG]	3	2	[4]	8.0	4	NA	10	NA	NA	NA	NA	NA	NA
	MCL [MRDL]	3	2	[4]	1	4	09	10	NA ¹	E	TT^2	803	E	TT=95% of samples meet the limit
	YEAR SAMPLED	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023	2023
REGULATED SUBSTANCES	SUBSTANCE (UNIT OF MEASURE)	Atrazine (ppb)	Barium (ppm)	Chlorine (ppm)	Chlorite (ppm)	Fluoride (ppm)	Haloacetic Acids [HAA5]-Stage 2 (ppb)	Nitrate (ppm)	Sodium (ppm)	Total Coliform Bacteria (positive samples)	Total Organic Carbon [TOC] (ppm)	TTHMs [total trihalomethanes]-Stage 2 (ppb)	Turbidity ⁴ (NTU)	Turbidity (lowest monthly percent of samples meeting limit)

	Typical Source	Corrosion of household plumbing systems; Erosion of natural deposits	Lead service lines, Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits
	VIOLATION	No	No
	SITES ABOVE AL/TOTAL SITES	0/32	0/32
	AMOUNT DETECTED	0.024	1.6
t the community.	MCLG	1.3	0
ites throughou	AL	1.3	15
analyses from sample s	YEAR SAMPLED	2023	2023
Tap water samples were collected for lead and copper analyses from sample sites throughout the community.	SUBSTANCE (UNIT OF MEASURE)	Copper (ppm)	Lead (ppb)

	VIOLATION Typical Source	No Erosion of natural deposits, Residual from some surface water treatment processes	No Runoff/leaching from natural deposits	No Runoff/leaching from natural deposits; Industrial wastes	No Runoff/leaching from natural deposits		Typical Source		Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	Disinfection byproduct	NA	Disinfection byproduct
	RANGE LOW-HIGH	11-11	34-34	31-31	190-190																
	AMOUNT DETECTED	П	34	31	190																
	MCLG	NA	NA	NA	NA		Range	Low-High	2.5-6.4	0.63-1.5	98.0-QN	0.93-1.6	0.52-0.52	6.3-16.0	8.4-20.4	4.2-10.0	12-33	0.22-0.22	ND-2.5	2.6-2.6	1.1-4.3
	SMCL	200	250	250	200		Amount	Detected	6.4	1.5	98.0	1.6	0.52	91	20.4	10	33	0.22	2.5	2.6	4.3
	YEAR SAMPLED	2023	2023	2023	2023		Year	Sampled	2020	2020	2020	2020	2023	2020	2020	2020	2020	2023	2020	2021	2020
SECONDARY SUBSTANCES	SUBSTANCE (UNIT OF MEASURE)	Aluminum (ppb)	Chloride (ppm)	Sulfate (ppm)	Total Dissolved Solids [TDS] (ppm)	THE COLD ATER CHECT ANCEC	SUBSTANCE	(UNIT OF MEASURE)	Bromochloroacetic Acid (ppb)	Bromodichloroacetic Acid (ppb)	Chlorodibromoacetic Acid (ppb)	Dibromoacetic Acid (ppb)	Dicamba (ppb)	Dichloroacetic Acid (ppb)	HAAS (ppb)	HAA6Br (ppb)	HAA9 (ppb)	Metachlor (ppb)	Monochloroacetic Acid (ppb)	Perfluorohexanoic Acid (ppb)	Trichloroacetic Acid (ppb)

Footnotes for the City of Decatur:

Sodium if not currently regulated by the U.S. EPA; however, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

² The value reported under 'Amount Detected' for TOC is the lowest ratio between percentage of TOC actually removed and percentage of TOC required to be removed. A value of greater than 1 indicates that the water Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous system and my have an increased risk of getting system is in compliance with TOC removal requirements. A value of less than 1 indicates a violation of the TOC removal requirements.

4 Turbidity is a measure of the cloudiness of the water. It is monitored because ot is a good indicator of the effectiveness of the filtration system.

⁵ No MCL or mandatory health effects language has been established for this contaminant by either state or federal regulations. The purpose of *unregulated contaminant* monitoring is to assist the U.S. EPA in determining the occurrence of unregulated contaminants in drinkin water and whether future regulation is warranted.

VILLAGE OF MT. ZION'S RESULTS

DISINFECTANTS AND DISINFECTANT BY-PRODUCTS	PRODUCTS							
SUBSTANCE	YEAR COLLECTED	HIGHEST LEVEL DETECTED	RANGE OF LEVELS DETECTED	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Chlorine	2023	1.3	0.89-1.2	MRDLG = 4	MRDL = 4	mdd	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	2023	23	11.7-32	No goal for the total	09	qdd	N _o	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2023	69	26.8-105	No goal for the total	80	qdd	No	By-product of drinking water disinfection
INORGANIC CONTAMINANTS								
SUBSTANCE	COLLECTION DATE	HIGHEST LEVEL	RANGE OF LEVELS	MCLG	MCL	UNITS	VIOLATION	LIKELY SOURCE OF CONTAMINATION
Iron*	11/13/2018	0.101	0-0.101	NA	-	mdd	oN No	Erosion of natural deposits
*This contaminant is not currently regulated by the USEPA. However, it is regulated by the state.	USEPA. However, it is re	gulated by the stc	ıte.					

UNREGULATED SUBSTANCES			
SUBSTANCE (UNIT OF MEASURE)	DATE SAMPLED	AMOUNT DETECTED	TYPICAL SOURCE
PFTA (ppb)	2/12/2024	<0.008	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFTrDA (ppb)	2/12/2024	<0.007	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
NEtFOSAA (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
NMeFOSAA (ppb)	2/12/2024	<0.006	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFBS (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFHpA (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFHxS (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFNA (ppb)	2/12/2024	<0.004	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFOS (ppb)	2/12/2024	<0.004	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFOA (ppb)	2/12/2024	<0.004	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFDA (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFDoA (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFHxA (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFUnA (ppb)	2/12/2024	<0.002	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
11CI-PF3OUdS (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
9CI-PF3ONS (ppb)	2/12/2024	<0.002	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
ADONA (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
HFPO-DA (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFBA (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
6:2 FTS (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
4:2 FTS (ppb)	2/12/2024	<0.003	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
8:2 FTS (ppb)	2/12/2024	<0.005	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.
PFMPA (ppb)	2/12/2024	<0.004	Residue from fire training/fire response sites, industrial sites, landfills and wastewater treatment plants/biosolids.

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<0.003 Residue from plants/biosolids.	<0.003 Residue from plants/biosolids.	<0.003 Residue from plants/biosolids.	<0.002 Residue from plants/biosolids.	<0.004 Residue from plants/biosolids.	<0.003 Residue from plants/biosolids.	Residue from plants/biosolids
		0				
2/12/2024	2/12/2024	2/12/2024	2/12/2024	2/12/2024	2/12/2024	2/12/2024
PFPeA (ppb)	PFMBA (ppb)	PFEESA (ppb)	NFDHA (ppb)	PFPeS (ppb)	PFHpS (ppb)	Lithium (ppb)

The tables included in this report contain scientific terms and measures, some of which may require an explination. The terms and definitions are listed below.

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TABLE OF DEFINITIONS	
ppm (parts per million)	One part substance per million parts water (or milligrams per liter)
ppb (parts per billion)	One part substance per billion parts water (or micrograms per liter)
ppt (parts per trillion)	One part substance per trillion parts water (or nanograms per liter)
NTU (Nephelometric Turbidity Units)	Measurement of the clarity, or tubidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.
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
MRDLG (Maximum Residual Disinfectant Level Goal)	The level of a drinking water disinfectant below which there is no known or expected risk to health.
NA	Not Applicable
ND (Not Detected)	Indicates that the substance was not found by laboratory analysis.
TT (Treatment Technique)	A required process intended to reduce the level of a contaminant in drinking water.
AL (Action Level)	The concentration of a contaminant that triggers treatment or other required actions by the water supply.
SMCL (Secondary Maximum Contaminant Level)	These standards are developed to protect aesthetic qualities of drinking water and are not health based.
90TH %TILE	The levels reported for lead and copper represent the 90th percentile of the total number of sites tested. The 90th percentile is equal to or greater than 90% of our
Level I Assessment	A Level 1 Assessment is a study of the water system to identfy potential problems and determine (if possible) why total coliform bacteria have been found in our water system.
Level 2 Assessment	A Level 2 Assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.

VIOLATIONS TABLE

There are no violations to report.