

# 2022 Consumer Confidence Report



# Village of Mt. Zion

## Consumer Confidence Report For 2022

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 20 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](http://www.mtzion.com).

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

**For the year of 2021**, 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 Decatur's drinking water so that you will be an informed consumer. If you have any questions about this report or concerning your water system, please call Keith Alexander, Water Production Manager, at 217-424-2863 or e-mail at [kalexander@decaturil.gov](mailto:kalexander@decaturil.gov).

### *Source Water*

Our water drinking water is supplied by Lake Decatur and nine groundwater wells. Lake Decatur is 2,850 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 925 square miles, 87% of which is used for growing corn and soybeans. When Lake Decatur water levels are low, the City uses wells located in Macon and Dewitt Counties 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).

### *Source Water Assessment*

The Source water assessment for our water supply has been completed by the Illinois EPA. 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 bacteria and protozoan 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.
- **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 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).

### **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>.



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 those contaminants that were detected in the water. The state requires us to monitor for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken. We participated in the 3rd stage of the EPA's Unregulated Contaminant Monitoring Regulation (UCMR3) program by performing additional tests on our drinking water. UCMR3 benefits the environment and public health by providing the EPA with data on the occurrence of contaminants suspected to be in drinking water, in order to determine if the EPA needs to introduce new regulatory standards to improve drinking water quality.

**Decatur's Regulated Contaminants Detected:**

<b>Coliform Bacteria</b>						
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest No. of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level	Total No. of Positive E. Coli or Fecal Coliform Samples	Violation	Likely Source of Contamination
0	5% of monthly samples are positive	1.2		0	No	Naturally present in the environment.

<b>Regulated Substances</b>							
Substance (Units of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range (low-high)	Violation	Typical Source
Atrazine (ppb)	2017	3	3	0.4	ND - 0.4	No	Runoff from herbicide used on row crops
Barium (ppm)	2021	2	2	0.0058	.0058-0.0058	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2021	[4]	[4]	2.1	1.2-2.1	No	Water additive used to control microbes
Chlorite (ppm)	2021	1	0.8	0.55	0.31-0.55	No	By-product of drinking water disinfection
Fluoride (ppm)	2021	4	4	0.72	0.66-0.72	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAA5]-Stage 2 (ppb)	2021	60	NA	16.4	6.4-17.5	No	By-product of drinking water disinfection
Nitrate(1) (ppm) [measured as Nitrogen] - Nitrate in drinking water at levels above 10 ppm is a health risk for infants less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.	2021	10	10	6.5	0.04-6.5	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
TTHMs [Total Trihalomethanes] (ppb)	2021	80	NA	51.8	17.9-69.0	No	By-product of drinking water disinfection
Total Organic Carbon (2) (ppm)	2021	TT	NA	2.4	1.2-2.4	No	Naturally present in the environment
Turbidity (3) (NTU)	2021	TT	NA	0.16	0.01-0.16	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2021	TT	NA	100	NA	No	Soil runoff

<b>Tap water samples were collected for lead and copper analyses from sample sites throughout the community.</b>							
Lead and Copper (Units of Measure)	Year Sampled	AL	MCLG	90th Percentile	Sites above AL/ Total Sites	Violation	Typical Source
Copper (ppm)	2020	1.3	1.3	0.022	0/33	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	2020	15	0	2.2	1/33	No	Lead service lines; Corrosion of household plumbing systems, including fittings and fixtures; Erosion of natural deposits

<b>State Regulated Substances</b>							
Substance (Units of Measure)	Year Sampled	MCL [MRDL]	MCLG [MRDLG]	Amount Detected	Range (low-high)	Violation	Typical Source
Sodium (ppm)	2021	NA	NA	14	14-14	No	Erosion of naturally occurring deposits; Used in water softener regeneration



Secondary Substances							
Substance (Units of Measure)	Year Sampled	SMCL	MCLG	Amount Detected	Range (low-high)	Violation	Typical Source
Aluminum	2020	200	NA	13	13-13	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2021	250	NA	32	32-32	No	Runoff/leaching from natural deposits
Sulfate (ppm)	2021	250	NA	28	28-28	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids [TDS] (ppm)	2021	500	NA	200	200-200	No	Runoff/leaching from natural deposits

**Mt. Zion's Regulated Contaminants Detected**

Coliform Bacteria			
Maximum Contaminant Level Goal	Total Coliform Maximum Contaminant Level	Highest Number of Positive	Fecal Coliform or E. Coli Maximum Contaminant Level
0	1 positive monthly sample	0	0

**Lead and Copper**  
**Definitions:** Action Level Goal (ALG): The level of a contaminant in the drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety. Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Lead and Copper	Date sampled	MCLG	Action Level (AL)	90th percentile	Number of sites over AL	Units	Violation	Likely source of contamination
Lead	2021	0	15	0	0	ppb	No	Corrosion of household plumbing systems; Erosion of natural deposits.

**Water Quality Test Results**

Maximum Contaminant Level Goal (MCLG):	The level of a contaminant in the drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
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 Residual Disinfectant Level Goal (MRDLG):	The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
Maximum Residual Disinfectant Level (MRDL):	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 contaminants.
Level 1 Assessment:	A Level 1 assessment is a study of the water system to identify 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

<b>Definitions:</b>	<b>The following tables contain scientific terms and measures, some of which may require explanation</b>
NA:	Not applicable
MREM:	Millirems per year (a measure of radiation absorbed by the body)
PPB:	Micrograms per liter or parts per billion - or one ounce in 7,350,000 gallons of water
PPM:	Milligrams per liter or parts per million - or one ounce in 7,350 gallons of water
AVG:	Regulatory compliance with some MCLs are based on running annual average of monthly samples
Treatment Technique (TT):	A required process intended to reduce the level of contaminant in drinking water

Regulated Contaminants							
Disinfectants and Disinfection By-Products	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Chlorine	2021	1.4	0.9-1.8	MRDLG = 4	MRDL = 4	No	Water additive used to control microbes
Haloacetic Acids (HAA5) *	2021	30	17.7-39	No goal for the total	60	No	By-product of drinking water disinfection
Total Trihalomethanes (TTHM)	2021	91	10.9-137	No goal for the total	80	Yes	By-product of drinking water disinfection
Inorganic Contaminants	Collection Date	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Violation	Likely Source of Contamination
Iron	11/13/2018	0.101	0 - 0.101	1	1	No	This contaminant is not currently regulated by the USEPA. However, the state regulates. Erosion of natural deposits.



<b>Violations Table</b>			
<b>Lead Copper Rule</b>			
The Lead and Copper Rule protects public health by minimizing lead and copper levels in drinking water, primarily by reducing water corrosivity. Lead and copper enter drinking water mainly from corrosion of plumbing materials containing lead and copper.			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
OCCT/SOWT INSTALL DEMONSTRATION (LCR)	6/6/2021	2021	We have been required to provide additional treatment to reduce lead contamination. We failed to provide the required treatment by the required date.
<b>Corrective Actions</b>			
We have since provided the required treatment and testing to ensure water quality.			
<b>Public Notification Rule</b>			
The Public Notification Rule helps to ensure that consumers will always know if there is a problem with their drinking water. These notices immediately alert consumers if there is a serious problem with their drinking water (e.g., a boil water emergency)			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
PUBLIC NOTICE RULE LINKED TO VIOLATION	12/30/2021	1/4/2022	We failed to adequately notify you, our drinking water consumers, about a violation of the drinking water regulations.
<b>Corrective Actions</b>			
We have ensured that proper notifications are sent out in the event of any drinking water problems.			
<b>Total Trihalomethanes (TTHM)</b>			
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 systems, and may have an increased risk of getting cancer.			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
FAILURE TO SUBMIT OEL REPORT FOR TTHM	12/30/2021	2/10/2022	We failed to submit our operational evaluation level (OEL) report to our regulator. The report is needed to determine best treatment practices necessary to minimize possible future exceedences of TTHM.
<b>Corrective Actions</b>			
We have since submitted our OEL report to our regulator, and we are in constant communication with them to ensure the best treatment practices to minimize possible future exceedences of TTHM.			
<b>Violation Type</b>	<b>Violation Begin</b>	<b>Violation End</b>	<b>Violation Explanation</b>
MCL, LRAA	10/1/2021	12/31/2021	Water samples showed that the amount of this contaminant in our drinking water was above its standard (called a maximum contaminant level and abbreviated MCL) for the period indicated.
<b>Corrective Actions</b>			
In addition to the quarterly samples required by the EPA, we are now sampling monthly and sending to PDC Laboratories for analysis. We have also increased the frequency of hydrant flushing to help keep constant circulation.			