

SAUK VILLAGE WATERWORKS

DRINKING WATER QUALITY REPORT FOR 2021

Sauk Villages Water Department vigilantly safeguards its well water supply. This brochure is a summary of the Drinking water quality provided to its customers last year. It is a record of the hard work, by our Certified Operator and field personnel, to bring you water that is safe.

Included are details about where your water comes from, what it contains, and how it compares to the standards set by the regulatory agencies. Sauk Village WaterWorks is committed to providing you with information about your water supply, because customers who are informed are our best allies in supporting improvements necessary to maintain the highest drinking water standards.

On tap at the Sauk Village WaterWorks Distribution and Water Treatment improvements in 2021

- We have one Class “A” Certified Operator / Technician who continues his education to keep up to date with the ever-changing rules and technology in the water industry, to provide the public with safe drinking water.
- We are currently training an additional Water System Technician / Operator to assist with the ever-increasing workload at the Water Department.
- We operate two Sauk Village water treatment facilities, which include permanent air stripping systems and iron removal filter systems. Both sites are operational, and pumping treated finished water to our system that tests ND, not detected, for Vinyl Chloride.
- With the addition of the air stripping and filter systems our water quality has improved and greatly reduced our customer complaints for rusty water and taste and odor issues.
- We continue to upgrade of our distribution system infrastructure with the replacement of fire hydrants, water main valves, and sections of water main that are deteriorating beyond repair.
- Replacement and repair of residential shut off valves as needed continued throughout 2021.
- In addition to weekly flushing of key areas we also continue the flushing and maintenance of our fire hydrants, **Weather/Man power permitting**, to provide a reliable system for the Fire Department in the event of an emergency.

Sources of Sauk Village’s Drinking Water comes from three groundwater wells, two wells located at 2217 220th St. and one at 2050 Evergreen. They are drilled approximately 500’ deep into the sandstone layer of the earth. This is water that is trapped within the sandstone and forms the water table. Groundwater is less likely to become contaminated than surface water but is still mandated to be tested

for chemical constituents as outlined by the Illinois EPA and the USEPA.

2021 Water Quality Data

The tables listed below show the contaminant, Maximum Contaminant Level (MCL), Maximum Contaminant Level Goal (MCLG), and sources of contaminants. Some of the following abbreviations are used throughout this report and are defined as follows:

MCLG = Maximum Contaminant Level Goal, or the level of contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

MCL = Maximum Contaminant Level or the highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG as feasible using the best available treatment technology.

AL = Action Level, or the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

ND = not detectable at testing limits, **NA** = not applicable, **mg/l** = milligrams per liter, or **parts per million** (or one ounce in 7,350 gallons of water), **ug/l** = micrograms per liter, or **parts per billion** (or one ounce in 7,350,000 gallons of water), **pCi/l** = picocuries per liter, used to measure radioactivity

The "**Level Found**" column represents an average of sample result data collected.

The "**Range of Detections**" column represents a range of individual sample results.

The "**Date of Sample**" column. If a date appears in this column, the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change.

Volatile Organic Contaminants	MCLG	MCL	Level Found	Range of Detection	Violations	Date of Sample	Sources of Contaminant
Dichloromethane (ug/l)	0	5	N/D	0 - 0	N	2021	Discharge from pharmaceutical and chemical factories.
Ethylbenzene (ug/l)	700	700	N/D	0 - 0	N	2021	Discharge from petroleum refineries
Toluene (mg/l)	1	1	N/D	0 - 0	N	2021	
Vinyl Chloride (ug/l)	0	2	N/D	0 - 0	N	2021	Leaching from PVC piping; Discharge from factories
Xylenes (mg/l)	10	10	N/D	0 - 0	N	2021	
Cis-1,2 Dichloroethylene (ug/l)	70	70	N/D	0 - 0	N	2021	Discharge from industrial chemical factories

Inorganic Contaminates	MCLG	MCL	Level Found	Range of Detection	Violation	Date of Sample	Sources of Contaminant
Arsenic (ug/l)	0	10	0.527	0.527-0.527	N	2021	Erosion of natural deposits. Runoff from orchards. Runoff from glass and electronics production wastes.
Barium (mg/l)	2	2	0.0663	0.066 - 0.066	N	2021	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.
Chromium (ug/l)	100	100	5.41	5.41-5.41	N	2021	Discharge from steel and pulp mills. Erosion of natural deposits.
Copper (mg/l)	1.3	* AL=1.3	90 th percentile 0.543	0 exceeding AL	N	2020	Corrosion of household plumbing systems; erosion of natural deposits.
Lead (ug/l)	0	* AL=15	90 th percentile 0	0 exceeding AL	N	2020	Corrosion of household plumbing systems; erosion of natural deposits.
Fluoride (mg/l)	4.0	4.0	0.79	0.79 – 0.79	N	2021	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories.
Haloacetic Acids (HAA5)in(ug/l)	No goal for total	60	1.0	0.611–0.659	N	2021	By-product of drinking water disinfection
Total Trihalomethanes (TTHM) in (ug/l)	No goal for total	80	3.0	0.0 – 3.36	N	2020	By-product of drinking water disinfection

Nitrate (as N) (mg/l)	10	10	0.122	0.0 – 0.122	N	2019	Erosion of natural deposits; run-off from fertilizer use; leaching from septic tanks, sewage.
Nitrite (as N) (mg/l)	1	1	0.042	0.0 -0.042	N	2021	
Selenium	50	50	2042	2.42 – 2.42	N	2021	Discharge from petroleum and metal refineries. Erosion of natural deposits. Discharge from mines.
Radioactive	0	15	5.92	5.92 – 5.92	N	2021	Erosion of natural deposits
Alpha Emitters (pCi/l) Combined Radium (pCi/l)							
State Regulated Contaminants	MCLG	MCL	Level Found	Range of Detections	Violation	Date of Sample	Sources of Contaminants
Manganese (ug/l)	150	150	11	0 - 28	N	2021	Not currently Regulated Erosion of Naturally occurring deposits.
Sodium (mg/l)	NA	NA	209	209 - 209	N	2021	Erosion of naturally occurring deposits; used as water softener.
Chlorine (mg/l)	MRDLG = 4	MRDL = 4	1.1	0.73 – 1.4	N	2021	Water additive used to control microbes

Microbial Contaminants	MCLG	MCL	Highest No. of Positive	Violation	Source Of Contamination
Total Coliform	0	0	0	No	Naturally present in the environment
Fecal Coliform and E-Coli	0	0	0	No	

Violation Summary Table

Violation Types

MNR Monitoring Violation (failure to Monitor)

MCL Maximum Contaminant Level (level found exceeded regulated standard)

TTV Treatment Technique Violation (failure to meet treatment process)

RPV Reporting Violation (failure to submit results/required report by deadline)

Violations for Sauk Village Public Water Supply IL0312790

Violations Table: We had Two Monitoring violations in 2021.

Violation Type: Monitoring – Manganese

Violation Type: Monitoring – Volatile Organic Chemicals

Our sample kits for both of these were misplaced in transit and were never received by the water department.

The water department requested new sample kits and we sampled our drinking water upon receipt of the sample kits however missing the sampling deadline.

Both sample sets were tested, and the results were as expected.

Manganese tested at well below the limits set by the Illinois EPA.

Volatile Organic Chemicals tested at N/D or none detected.

We are required to monitor your drinking water for specific contaminants on a regular basis. Results are an indicator of whether our drinking water meets health standards. During 10/1 – 12/31 we missed the sampling deadline therefore cannot be sure of the water quality at that time. We are currently in compliance with the drinking water standard set by the IEPA.

We test monthly, all raw and finished water Produced. We are diligently working with the IEPA to ensure we meet all drinking water standards.

Water Quality Data Table Footnotes

Unregulated

Contaminants: A maximum contaminant level (MCL) for this contaminant has not been established by either state or federal regulations, nor has mandatory health effects language. The purpose for monitoring this contaminant is to assist the USEPA in determining the occurrence of unregulated contaminants in drinking water, and whether future regulation is warranted.

Iron: This contaminant is not currently regulated by the USEPA. However, the state has set a MCL for this contaminant for supplies serving a population of 1000 or more.

Manganese: This contaminant is not currently regulated by the USEPA. However, the state has set a MCL for this contaminant for supplies serving a population of 1000 or more.

Sodium: There is not a state or federal MCL for sodium. Monitoring is required to provide information to consumers and health officials that are concerned about sodium intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult your physician about this level of sodium in the 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hot Line (1-800-426-4791).*

The sources of drinking water (both tap 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 human activity.

Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses and bacteria, which may come from sewerage treatment plants, septic systems, agricultural livestock operations and wildlife.
- **Inorganic contaminant**, such as salts and metals, which can be naturally occurring or the 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.

In order to ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain contaminants in water provided by the 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 Hot Line (1-800-426-4791).*

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 or at <http://www.epa.gov/safewater/lead>.

The Source Water Assessment for Sauk Village (facility # 0312790)

The source water assessment for our supply has been completed by the Illinois EPA. 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 1992 by the Illinois EPA, two possible problem sites were identified within the survey area of well #3. Furthermore, information provided by the Leaking Underground Storage Tank Section of the Illinois EPA indicated several additional sites with ongoing remediation's which may be of concern. With that, the Illinois EPA has determined that the Sauk community Water Supply's source water has a high susceptibility 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 hydro geologic data on the wells. It should be noted that while the above determination was made based on proximity and certain geologic conditions, the possibility still exists that Sauk's supply source could be impacted. Based on guidelines outlined in the U.S. EPA's Ground Water Rule, the Illinois EPA has determined that the Sauk Community Water Supply has a low susceptibility to viral contamination. This determination is based upon the completed evaluation of the following criteria during the Vulnerability Waiver Process: the village's

wells are properly constructed with sound integrity and proper site conditions; a hydro geologic 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 village'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.

Customer Views Welcome

All Village residents are encouraged to participate in the decision-making process concerning our drinking water by attending Village Board Meetings. Please contact the Village Hall for dates and times of meetings.

If you are interested in learning more about the Treatment and Distribution of the water system, or have any questions or concerns about this report, contact the Village Hall at 708.758.3330.