

# City of Sturgis

## 2023 Annual Water Report



City of Sturgis  
Water Department  
130 N. Nottawa St.  
Sturgis, MI 49091

POSTAL CUSTOMER  
STURGIS, MICHIGAN

Postal  
Customer  
Sturgis, MI

### Definitions and Abbreviations

**Maximum Contaminant Level Goal (MCLG):** 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

**Maximum Contaminant Level (MCL):** The highest level of a contaminant that is allowed in drinking water and is enforceable.

**Maximum Residual Disinfectant Level (MRDL):** The highest level of disinfectant allowed in drinking water. The addition of a disinfectant is necessary for control of microbial contaminants.

**Treatment Technique (TT):** A required process to reduce the level of a contaminant in drinking water.

**Highest Level Detected:** This column usually represents the highest result measured. For turbidity, it is the highest single measurement and the lowest monthly percentage of samples meeting the turbidity limits for the filtration technology being used. For Disinfectant By-Products, it is the highest running annual average.

**ND:** Not detectable within testing limits

**N/A:** Not applicable

**ppm:** Parts per million or milligrams per liter-or one ounce in 7,350 gallons of water

**ppb:** Parts per billion or micrograms per liter-or one ounce in 7,350,000 gallons of water

**ppt:** parts per trillion or nanograms per liter

**pCi/l:** picocuries per liter (a measure of radioactivity)

**Action Level (AL):** A level of contaminant that if exceeded, treatment may be required.

**Level 1 Assessment:** A study of the water supply to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system

**Level 2 Assessment:** A detailed study of the water system to identify potential problems and determine why an *E. coli* MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions





# City of Sturgis

## Consumer Confidence Report

### Water Quality Report for 2023

*"Este Informe contiene información muy importante sobre su agua de beber. Si desea entender este reporte puede buscar alguien que lo traduzca para ud."*

#### Introduction

The City of Sturgis has developed and distributed this water quality report as part of our continued effort to provide our water customers with educational information regarding your drinking water supply. This report also demonstrates that your drinking water supply is safe by meeting or exceeding all water quality standards listed in the Safe Drinking Water Act (SDWA).

The United States Environmental Protection Agency (USEPA) and the Michigan Department of Environment Great Lakes & Energy (MIEGLE) continually monitor all drinking water utilities to comply with SDWA regulations. As required by Consumer Confidence Report (CCR) regulations of the amended SDWA, a water quality report will be distributed to all water customers by July 1 of each year.

During the past year, The City of Sturgis Water Department has taken hundreds of water samples to determine the presence of any biological, inorganic, volatile organic, or synthetic organic contaminants.

**No drinking water violations were recorded during 2023 for the City of Sturgis. All required monitoring and reporting were met.**

We want our valued customers to be informed about their water quality and safety. If you have any questions or comments regarding this report or our water supply system, please contact Tom Sikorski, Sturgis, Drinking Water Director Public Services, at (269) 651-2879. The Sturgis City Commission meets twice a month at 6:00 p.m. in the Wiesloch Raum at Sturgis City Hall. This report is available on our website at: <http://www.Sturgis.mi.gov>.

#### Drinking-Water Information

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of contaminants. Contaminants do not necessarily indicate that water poses a health risk. More information about these contaminants and potential health effects can be obtained by calling USEPA's Safe Drinking Water Hotline (800) 426-4791.

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. USEPA/CDC guidelines on appropriate means to reduce infection risk by microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (800) 426-4791.



To ensure that tap water is safe to drink, the USEPA sets regulations that limit the number of certain contaminants in water provided by public water systems. The food and Drug Administration (FDA) regulates limits for contaminants in bottled water, which must provide the same protections for public health.

#### Source Water Contaminants

To ensure that tap water is safe, the USEPA prescribes regulations limiting the number of certain contaminants in public water systems. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. These contaminants do not necessarily indicate that the water poses a health risk. The USFDA establishes limits on bottled water, which must provide the same protections for public health.

As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals, in some cases, radioactive material and substances resulting from the presence of animals or human activity. The drinking water sources (tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. Substances that may be in source water include:

**Microbial contaminants**, for example, viruses and bacteria, may come from sewage treatment plants, septic systems, farming, livestock and wildlife.

**Inorganic contaminants** such as salts and metals, can naturally result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

**Pesticides and herbicides**, may come from various sources such as agricultural uses, urban stormwater runoff, and residential uses.

**Organic chemical contaminants**, including synthetic and volatile organic chemicals, are by-products of industrial processes, petroleum production, gas stations, urban stormwater runoff, and septic tank systems.

**Radioactive contaminants** can result from oil and gas production and mining and natural activities.





## Source Water Location

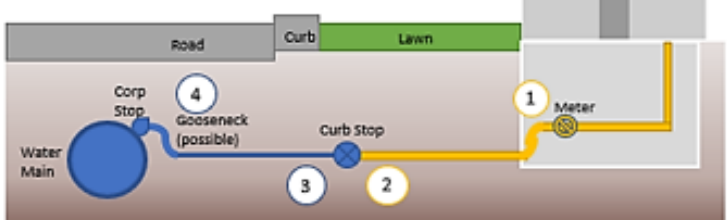
The City of Sturgis relies on groundwater for its drinking water supply. The City owns and operates four (4) wells located in the south and east of the community. The groundwater supply is a complex system composed of pumps, electronic instruments, and other appurtenances. Routine maintenance is performed on all equipment to ensure the reliability of the groundwater supply when it's needed, either in an emergency or as part of the seasonal supply. The municipal drinking water utilizes chlorine for disinfection; the drinking water is then pumped to the 1,500,000-gallon elevated storage tank water tower for public use.

## Source Water Assessment Program

The MiEGLE provided us with a Source Water Assessment Report for our water supply. It determines the susceptibility or relative potential of contamination to our drinking water wells. The susceptibility rating for the City of Sturgis is listed as "moderately high to high." The ratings are determined by geologic sensitivity, water chemistry, and potential contaminant sources located in the groundwater wells' areas. The source water assessment report provides a screening-level evaluation of potential contamination that could occur. It does not mean that the contamination has or will occur. This report helps us ensure that quality finished water is delivered to your homes.

### Replace 5% of Lead and GCPL Service Lines per year

Typical Ownership:  
 Public / Municipality  
 Private / Homeowner



## Water Quality Data Table

According to Federal and State laws, the City of Sturgis routinely monitors for contaminants in your drinking water. The table below lists the drinking water contaminants that we detected during the calendar year of this report unless otherwise noted. The State of Michigan requires us to monitor certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, though representative, some of our data may be more than one year old. If any, violations and Formal Enforcement Actions are reported in the next section of this report.

**Lead Information:** 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 service lines and home plumbing. The City, is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. If 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 have a lead service line it is recommended that you run your water for at least 5 minutes to flush water from both your home plumbing and the lead service line. If you are concerned about lead in your water, and information on lead in drinking water and testing methods, and steps you can take to minimize exposure is available from the at <http://www.epa.gov/safewater/lead>.

The Michigan Lead & Copper Rule, the most stringent in America, requires all lead service lines to be replaced. Replacement Rate: Beginning January 1, 2021, all community water supplies with lead or GPCL (Galvanized Previously Connected to Lead) service lines, must replace those service lines at a rate averaging 5% per year not to exceed 20 years. "Our water supply has 251 lead service lines and 2,708 service lines of unknown material out of a total of 4,357 service lines." "There are plans to replace 25-50 service lines in 2024. 145 lead service lines have been replaced so far since 2021."

## 2023 Water Quality Detected Contaminants for the City of Sturgis

### City of Sturgis Lead and Copper Results – Taken at Customer's Tap in 2022

Contaminant (Units)	MCL	Compliance Number	2023 Sites Above the AL	Range Detected (Low-High)	Testing Frequency	Violation (yes / no)	Typical Source of Contamination
Copper (ppm)	Action Level* (AL) 1.3 ppm	0.2 ppm	0	0 – 0.9 ppm	30 samples every three years	0 / No	Water service lines, household plumbing components
Lead (ppb) plumbing	Action Level** (AL) 15 ppb	1 ppb	0	0 – 9.0 ppb		0 / No	Water service lines, household plumbing components; Erosion of natural deposits

\* Action Level for Copper – 90% of the homes tested must have levels less than 1.3 ppm detected.

\*\* Action Level for Lead – 90% of the homes tested must have levels less than 15 ppb detected.

Note: Infants and children who drink water containing lead could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

## 2023 Water Quality Detected Contaminants for the City of Sturgis

Contaminant (Units)	MCLG, MRDL Reporting Limit	MCL or AL	Highest Level Detected	System Range of Detections	Violation	Sample Date	Typical Source of Contaminant
<b>City of Sturgis Regulated Chemicals and Contaminants Monitoring Results</b>							
Arsenic (ppb)	0	10	1.3	ND to 1.3	No	2023	Erosion of Natural deposits; Runoff from orchards and various production wastes
Barium (ppm)	2	2	0.053	0.039-0.053	No	2023	Discharge of metal plants; Natural deposits
Beryllium (ppb)	4	4	0.45	N/D to 0.45	No	2023	Discharge of metal refineries, electrical, discharge aerospace & defense Industry; coal burning industry
Cadmium (ppb)	5	5	0.86	N/D to 0.86	No	2023	Galvanized pipe Corrosion, natural deposits, metal refineries, waste paint runoff
Chromium (ppb)	100	100	3.2	2.0 to 3.2	No	2023	Steel & pulp mill discharge, natural deposits
Nitrate (ppm)	10	10	.088	N/D	No	2023	Fertilizer runoff; septic tank leaching, sewage; erosion natural deposits
Fluoride (ppm)	4	4	0.74	0.52 to 0.74	No	2023	Natural and water additive
Selenium (ppb)	50	50	8.0	4.9 to 8.0	No	2023	Erosion of natural deposits. Discharge from fertilizer and aluminum factories.
Sodium (ppm)	N/A	N/A	11	5.0 to 11.0	No	2023	Weathering of minerals in soil/de-icing
Total Coliform (total positive samples / month)	N/A	1	0	0	No	2023	Naturally present in the environment
Distribution system <i>E. coli</i> (positive samples)	See <i>E. coli</i> (note <sup>1</sup> )	1	0	0	No	2023	Human and animal fecal waste
Fecal Indicator - Positive <i>E. coli</i> at the source	TT	1	0	0	No	2023	Human and animal fecal waste
<b>City of Sturgis Disinfectant and Disinfectant By-Products</b>							
Chlorine (ppm)	4	N/A	1.04	0.1 to 0.9+	No	2023	Water additive used to control microbes.
TTHM – Total Trihalomethanes (ppb)	N/A	80	9.2	0.96 to 9.2	No	2023	By-product of drinking water disinfection.
HAA5 – Haloacetic Acids (ppb)	N/A	60	<1.0	N/D	No	2023	By-product of drinking water disinfection.
<b>City of Sturgis Radioactive Contaminants</b>							
Alpha emitters (pCi/L)	<5-pCi/L	15	3.23	1.6 to 3.23	No	2023	Erosion of natural deposits
Combined radium (pCi/L)	<5-pCi/L	5	1.3	0.58	No	2023	Erosion of natural deposits
<b>City of Sturgis Radioactive Per- and Polyfluoroalkyl Substances (PFAs) – Parts Per Trillion (ppt)</b>							
Hexafluoropropylene oxide dimer acid (HFPO-DA) (ng/L)	<2-Ng/L	0.65	N/D	N/A	No	2023	Discharge waste from industrial facilities utilizing the Gen X chemical process
Perfluorobutane sulfonic acid (PFBS) (ng/L)	<2-Ng/L	0.88	N/D	N/A	No	2023	Discharge and waste from industrial facilities; Stain-resistant treatments
Perfluorohexane sulfonic acid (PFHxS) (ng/L)	<2-Ng/L	0.98	N/D	N/A	No	2023	Firefighting foam; Discharge and waste from industrial facilities
Perfluorohexanoic acid (PFHxA) (ng/L)	<2-Ng/L	0.74	N/D	N/A	No	2023	Firefighting foam; Discharge and waste from industrial facilities
Perfluorononanoic acid (PFNA) (ng/L)	<2-Ng/L	0.76	N/D	N/A	No	2023	Discharge and waste from industrial facilities; Breakdown of precursors
Perfluorooctane sulfonic acid (PFOS) (ng/L)	<2-Ng/L	0.71	N/D	N/A	No	2023	Firefighting foam; Discharge from electroplating facilities; Discharge and waste from industrial facilities
Perfluorooctanoic acid (PFOA) (ng/L)	<2-Ng/L	0.64	N/D	N/A	No	2023	Discharge and waste from industrial facilities; Stain-resistant treatments

<sup>1</sup> *E. coli* MCL violation occurs if: (1) routine and repeat samples are total coliform-positive and either is *E. coli*-positive, or (2) the supply fails to take all required repeat *E. coli*-positive routine samples, or (3) the supply fails to analyze positive repeat sample for *E. coli*.