SOUTH AREA WATER TREATMENT PLANT ANNUAL DRINKING WATER REPORT 2023



Is My Water Safe?_

We are proud to say that in the last year, the Shakopee Mdewakanton Sioux Community (SMSC) water system completed and passed all tests required by the United States Environmental Protection Agency (EPA). Water from the South Area Water Treatment Plant is tested daily for chlorine, iron, pH, grains of hardness, and manganese. The water is also regularly tested for bacteria, pesticides, and other contaminants. These tests are performed to ensure that tribal water is safe to drink. This report contains information on the water consumed in 2023: where it comes from and whether it meets all drinking water safety standards. For more information on the contaminants tested this past year, please see the Water Quality Data Table in this report. The SMSC Public Works Department is working to ensure that the water provided is always safe to drink; we invite you to join us in this process.

Source Water Protection

The SMSC developed a Wellhead Protection Plan in 2001 to protect your drinking water and to help shape Community land use decisions. The SMSC Public Works Department feeds chlorine at 0.25 parts per million (ppm) for disinfection and an orthophosphate as a corrosion inhibitor at a rate of 4 ppm. The Wellhead Protection Plan was updated in 2009 to reflect recent changes in water and land use. The plan also includes new scientific data from the Minnesota Geological Survey and the United States Geological Survey. This data is available online at smscland.org.

If you would like to learn more about these initiatives or the Wellhead Protection Plan, please contact the SMSC Land and Natural Resources Department. Ole Olmanson SMSC Wellhead Protection Coordinator 952.233.4238 ole.olmanson@shakopeedakota.org

Where Does My Water Come From?_

The SMSC water supply originates beneath the surface of the earth as groundwater that is naturally filtered as it travels through soil and rocks. The Community has five wells in the Prairie du Chien-Jordan Aquifer that draws water from 200-250 feet below the surface.

The South Area Water Treatment Plant wells draw water from the Prairie du Chien-Jordan Aquifer. These wells pump water back to the surface where it is filtered and then softened by reverse osmosis. Finally, it is treated with chlorine and orthophosphate, and then made available for consumption.

How Can I Get Involved?

We encourage you to become more involved in Community water issues. Please feel free to ask questions and present concerns to the SMSC Business Council. We also invite you to call the SMSC Public Works Department for more information.

Jeremy Gosewisch

Director of Public Works 952.496.6176

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Why are there contaminants in my drinking 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 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 (800.426.4791). The sources of drinking water (both tap 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 dissolves naturally occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity: microbial contaminants, such as viruses and bacteria, that 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 stormwater 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 stormwater runoff, and residential uses; organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum and 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 public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

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. South Water Treatment Plant is responsible for providing high quality drinking water but 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 www.epa.gov/safewater/lead.

Terms and Abbreviations Used Below

Action Level

The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements a water system must follow.

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 Contaminant Level Goal (MCLG)

The level of a contaminant in drinking water up to which there are no known or expected risks to one's health. MCLGs allow for a margin of safety and are set by the Environmental Protection Agency.

ND

Non-detected

Total Trihalomethanes (TTHMs)

Total trihalomethanes are a byproduct of chlorinating water that contains natural organics derived from decaying plant materials.

Volatile Organic Compounds (VOCs)

Volatile organic compounds include a variety of chemicals that become a gas at room temperature. Once released into the environment, they can last for decades. They are a main component of indoor and outdoor air pollution.

Units Description:

ppm parts per million, or milligrams per liter (mg/l)

ppb

parts per billion, or micrograms per liter (ug/l)

pCi/l

picocuries per liter (measure of radioactivity)

Water Quality Data Table

The table included in this report lists all of the drinking water contaminants we detected during the 2023 calendar year. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing during the 2023 calendar year. The EPA requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants do not frequently change. Some of the data, though representative of the water quality, may be more than one year old. The results in the table show that all detected contaminants are below the maximum allowable contaminant level for the South Area Water Treatment Plant.

| Inorganic Chemicals | MCL | MCLG | Your Water | Violation | Sample Date | Typical Source of Contamination |
|--------------------------------|------------|-----------|--------------|-----------|-------------|--|
| Barium | 2.0 mg/l | 2.0 mg/l | 0.0765 mg/l | No | Dec. 2023 | Erosion of natural deposits |
| Copper | 1.3 mg/l | 1.3 mg/l | 0.556 mg/l | No | Oct. 2022 | Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives |
| Lead | 0.015 mg/l | 0 mg/l | 0.0019 mg/l | No | Oct. 2022 | Corrosion of household plumbing systems, erosion of natural deposits |
| Antimony | 0.006 mg/l | 0 mg/l | ND | No | Dec. 2022 | Byproduct of industrial facilities |
| Radionuclide Alpha Emitters | 15 pCi/l | 0 pCi/l | .599 pCi/l | No | Dec. 2022 | Erosion of natural deposits |
| Radium 226 | 5 pCi/l | 0 pCi/l | .0549 pCi/l | No | Dec. 2022 | Erosion of natural deposits |
| Radium 228 | Combined | 0 pCi/l | .202 pCi/l | No | Apr.2022 | Erosion of natural deposits |
| Nitrate/Nitrite | 10 mg/l | 10 mg/l | ND | No | May 2023 | Runoff from fertilizer use, leaching from septic tanks, sewage, erosion of natural deposits |
| TTHMs | MCL | MCLG | Your Water | Violation | Sample Date | Typical Source of Contamination |
| Bromodichloromethane | 0.08 mg/l | 0 | 0.0009 mg/l | No | Aug. 2023 | Byproduct of drinking water disinfection |
| Chloroform | 0.08 mg/l | 0 | 0.0019 mg/l | No | Aug. 2023 | Byproduct of drinking water disinfection |
| O-Xylene | 10 mg/l | 10 mg/l | 0.00067 mg/l | No | Aug. 2014 | Discharge from chemical and petroleum factories |
| P and M-Xylene | 10 mg/l | 10 mg/l | 0.0014 mg/l | No | Aug. 2014 | Discharge from chemical and petroleum factories |
| Chlorodibromomethane | 0.08 mg/l | 0 | 0.0012 mg/l | No | Aug. 2022 | Byproduct of drinking water disinfection |
| Haloacetic Acids | MCL | MCLG | Your Water | Violation | Sample Date | Typical Source of Contamination |
| Dibromoacetic Acid | 0.060 mg/l | 0 mg/l | ND | No | Aug. 2022 | Byproduct of drinking water disinfection |
| Dichloroacetic Acid | 0.060 mg/l | 0 mg/l | 0.001 mg/l | No | Aug. 2022 | Byproduct of drinking water disinfection |
| Monobromoacetic Acid | 0.060 mg/l | 0 mg/l | ND | No | Aug. 2022 | Byproduct of drinking water disinfection |
| Monochloroacetic Acid | 0.060 mg/l | 0.07 mg/l | ND | No | Aug. 2022 | Byproduct of drinking water disinfection |
| Trichloroacetic Acid | 0.060 mg/l | 0.02 mg/l | ND | No | Aug. 2022 | Byproduct of drinking water disinfection |

Do I need to take special precautions?

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 to infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control and Prevention (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800.426.4791).