

SOUTH AREA WATER TREATMENT PLANT

ANNUAL DRINKING WATER REPORT 2020



PUBLIC WORKS

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 2020: 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. This plan helps shape Community land use decisions in order to protect your drinking water. SMSC Public Works 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.

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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.

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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, 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.

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 2020 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 done in the 2020 calendar year. The EPA requires us to monitor for certain contaminants

less than once per year because the concentrations of these contaminants do not change frequently. 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
Copper	1.3 mg/l	1.3 mg/l	0.224 mg/l	No	Sept. 2019	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead	0.015 mg/l	0 mg/l	ND	No	Sept. 2019	Corrosion of household plumbing systems, erosion of natural deposits
Barium	2 mg/l	2 mg/l	0.055 mg/l	No	Dec. 2016	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Radionuclide Alpha Emitters	15 pCi/l	0 mg/l	4.5 pCi/l	No	July 2003	Erosion of natural deposits
Radium 226	5 pCi/l	0 mg/l	0 pCi/l	No	Dec. 2013	Erosion of natural deposits
Radium 228	Combined	0 mg/l	1.1 pCi/l	No	Dec. 2013	Erosion of natural deposits
Nitrate/Nitrite	10 mg/l	10 mg/l	0.05 mg/l	No	May 2020	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	0.0012 mg/l	No	Aug. 2020	Byproduct of drinking water disinfection
Chloroform	0.08 mg/l	0	0.0022 mg/l	No	Aug. 2020	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	0.0006 mg/l	No	Aug. 2020	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. 2020	Byproduct of drinking water disinfection
Dichloroacetic Acid	0.060 mg/l	0 mg/l	ND	No	Aug. 2020	Byproduct of drinking water disinfection
Monobromoacetic Acid	0.060 mg/l	0 mg/l	ND	No	Aug. 2020	Byproduct of drinking water disinfection
Monochloroacetic Acid	0.060 mg/l	0.07 mg/l	ND	No	Aug. 2020	Byproduct of drinking water disinfection
Trichloroacetic Acid	0.060 mg/l	0.02 mg/l	ND	No	Aug. 2020	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. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS 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 (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).