

2020

# ANNUAL DRINKING WATER QUALITY REPORT



## SOUTH CENTRAL REGIONAL WATER DISTRICT

10700 Highway 1804 N • Bismarck, ND 58503 • Phone: 701-258-8710

We are very pleased to provide you with this year's **"Quality on Tap" Report**. We want to keep you informed about the excellent water and services we have delivered to you over the past year. Our goal is to provide you with a safe and dependable supply of drinking water. Our water sources are purchased water from the city of Bismarck and our Water Treatment facilities in North Burleigh & Emmons County. They all treat surface water drawn from the Missouri River.

South Central Regional Water District is involved in North Dakota's Wellhead Protection Program. The program was established through ND Rural Water Systems Assoc. and the ND Dept. of Environmental Quality. A copy of the Wellhead Protection Plan along with other relevant information is available from our office during normal business hours. The ND Dept. of Environmental Quality has prepared a Source Water Assessment for South Central Regional Water District. Information on this program is also available to the public during normal business hours.

Our public water system, in cooperation with the North Dakota Department of Environmental Quality, has completed the delineation and contaminant/land use inventory elements of the North Dakota Source Water Protection Program. Based on the information from these elements, the North Dakota Department of Health has determined that our source water is **"susceptible"** to potential contaminants. No significant sources of contamination have been identified.

If you have any questions regarding this report or concerning your water utility, please contact **Larry Kassian at (701) 258-8710**. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings. They are held on the third Tuesday of each month at 5:30 p.m. @ South Central Regional Water District's office located @ 10700 Hwy 1804 North, Bismarck, ND. If attendance is desired, please call the office in advance, for further information. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Larry Kassian at the number listed above.

South Central Regional Water District would appreciate it if large volume water customers would please post copies of the **"Quality on Tap" Report** in conspicuous locations or distribute them to tenants, residents, patients, students, and/or employees, so individuals who consume the water, but do not receive a water bill can learn about our water system.

South Central Regional Water District routinely monitors for contaminants in your drinking water per Federal and State laws. The following table shows the results of our monitoring for the period of January 1<sup>st</sup> to December 31<sup>st</sup>, 2020. As authorized and approved by the EPA, the State has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data [e.g., for inorganic contaminant], though representative, is more than one-year-old.

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.

### **Contaminants 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 and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban storm water, industrial or domestic wastewater discharges, oil production, mining, or farming.

**Pesticides and herbicides**, which 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.

To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the number of certain contaminants in water provided by public water systems.

The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

In the following table, you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we have provided the following definitions.

#### **Not applicable (NA), No Detect (ND)**

**Parts per million (ppm) or Milligrams per liter (mg/l)** - one part per million corresponds to one minute in two years or a single penny in \$10,000.

**Parts per billion (ppb) or Micrograms per liter (µg/L)** - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

**Picocuries per liter (pCi/l)** -Pico curies per liter is a measure of the radioactivity in water.

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

**Treatment Technique (TT)** - A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

**Maximum Contaminant Level** - The "Maximum Allowed" (MCL) is 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** - The "Goal" (MCLG) is 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 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.

**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.

## 2020 TEST RESULTS FOR SOUTH CENTRAL REGIONAL WATER DISTRICT AND THE CITY OF BISMARCK

Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (Year)	Violation Yes/ No Other Info	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Barium	2	2	0.00516	ppm	N/A	2017	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Fluoride	4	4	0.648	ppm	N/A	2017	No	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate-Nitrite	10	10	0.036	ppm	N/A	2020	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Microbiological Contaminants</b>								
Turbidity**	N/A	TT=3	0.07	NTU	N/A	2020	100% of samples met turbidity limits	Soil runoff
<b>Copper/Lead</b>								
Copper	N/A	AL=1.3	0.0524 90th% value	ppm	N/A	2019	0 sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead*	N/A	AL=15	No Detect 90th% value	ppb	N/A	2019	1 sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
<b>Stage 2 Disinfection By-products</b>								
HAA5	N/A	60	14	ppb	6.78 to 19.95	2020	No	By-product of drinking water chlorination
TTHM	N/A	80	37	ppb	20.3 to 35.19	2020	No	By-product of drinking water chlorination
<b>Disinfectants</b>								
Chloramines	MRDLG =4	MRDL =4.0	1.7	ppm	1.34 to 2.09	2020	No	Water additive used to control microbes
<b>Total Organic Carbon Removal</b>								
Alkalinity, source	N/A	N/A	232	mg/L	206.00 to 232.00	2020	No	Natural erosion, certain plant activities, certain industrial wastewater discharges
Carbon, Total Organic (TOC) - finished	N/A	N/A	2.6	mg/L	2.10 to 2.60	2020	No	Naturally present in the environment
Carbon, Total Organic (TOC) - source	N/A	N/A	3.7	mg/L	3.40 to 3.70	2020	No	Naturally present in the environment
<b>Radioactive Contaminants</b>								
Gross Alpha, Including RA, Excluding RN & U	15	15	No Detect	pCi/l	N/A	2017	No	Erosion of natural deposits
Radium, Combined (226, 228)	N/A	5	1.17	pCi/l	N/A	2017	No	Erosion of natural deposits
Uranium, Combined	N/A	30	No Detect	ppb	-0.76 to 0.0	2017	No	Erosion of natural deposits



## Source Water Microbiological Monitoring:

E. coli is an indicator bacterium commonly found in surface water and originates in the intestinal tract of warm-blooded animals; some types of e. coli bacteria are pathogenic. It is effectively removed by filtration and destroyed by chlorination and was not detected in the finished water or in the distribution system through our Coliform/E. coli bacterial testing program. In 2020 there were no detections.

\*\*Turbidity is a measure of the cloudiness of the water. The city of Bismarck monitors it because it is a good indicator of the effectiveness of their filtration system. 100% of samples met turbidity limits.

**Surface Water Treatment Rule Monitoring Data:** Lowest monthly percentage of samples meeting turbidity limits = 100%,

## 2020 TEST RESULTS FOR SOUTH CENTRAL REGIONAL WATER DISTRICT - NORTH BURLEIGH COUNTY

Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (Year)	Violation Yes/No Other Info	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Barium	2	2	0.0162	ppm	N/A	2016	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Chromium	100	100	2.7	ppb	N/A	2016	No	Discharge from steel and pulp mills, erosion of deposits
Fluoride	4	4	0.81	ppm	N/A	2016	No	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate-Nitrite	10	10	0.06	ppm	N/A	2020	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Synthetic Organic Contaminants including Pesticides &amp; Herbicides</b>								
Pentachlorophenol	0	1	0.03	ppb	N/A	2017	No	Discharge from wood preserving factories
<b>Radioactive Contaminants</b>								
Gross Alpha, including RA, excluding RN & U	15	15	1.04	pCi/l	N/A	2017	No	Erosion of natural deposits
Radium, combined (226, 228)	N/A	5	0.09	pCi/l	N/A	2017	No	Erosion of natural deposits
Uranium, combined	N/A	30	1.84	ppb	N/A	2017	No	Erosion of natural deposits
<b>Copper/Lead</b>								
Copper	1.3	AL=1.3	0.142 90th% value	ppm	N/A	2018	0 sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead*	0	AL=15	3.81 90th% value	ppb	N/A	2018	1 site exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
<b>Disinfectants</b>								
Chlorine	MRDL =4.0	MRDL =4	1.5	ppm	1.1 to 1.48	2020	No	Water additive used to control microbes
<b>Stage 2 Disinfection By-products</b>								
HAA5	N/A	60	22	ppb	7.66 to 56.43	2020	No	By-product of drinking water chlorination
TTHM	N/A	80	46	ppb	22.32 to 94.07	2020	No	By-product of drinking water chlorination

## 2020 TEST RESULTS FOR SOUTH CENTRAL REGIONAL WATER DISTRICT - NORTH BURLEIGH COUNTY (cont.)

Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (Year)	Violation Yes/No Other Info	Likely Source of Contamination
<b>Unregulated Contaminants</b>								
Bicarbonate AS HCO <sub>3</sub>	N/A	N/A	394	ppm	239 to 394	2020	No	N/A
Bromide	N/A	N/A	1.56	ppm	45 to 79	2020	No	N/A
Manganese	N/A	N/A	0.013	ppm	N/A	2020	No	N/A
<b>Microbiological Contaminants</b>								
Turbidity**	N/A	TT=.3	0.011	NTU	N/A	2020	100% of samples met turbidity limits	Soil runoff
<b>Total Organic Carbon Removal</b>								
Alkalinity, Source	N/A	N/A	255	Mg/l	196.00 to 323.00	2020	No	Natural erosion, certain plant activities, certain industrial wastewater discharges
Carbon, Total Organic (TOC) - Finished	N/A	N/A	1.32	Mg/l	0.73 to 1.56	2020	No	Naturally present in the environment
Carbon, Total Organic (TOC)-Source	N/A	N/A	3.87	Mg/l	3.04 to 6.27	2020	No	Naturally present in the environment

\*\*Turbidity is a measure of the cloudiness of the water. The SCRWD Burleigh North monitors it because it is a good indicator of the effectiveness of their filtration system. 100% of samples met turbidity limits.

### Surface Water Treatment Rule Monitoring Data:

Lowest Monthly Percentage of Samples Meeting Turbidity Limits= 100%

**Highest Single Measurement = 0.11**

## 2020 TEST RESULTS FOR SOUTH CENTRAL REGIONAL WATER DISTRICT'S EMMONS COUNTY WATER TREATMENT PLANT

Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (Year)	Violation Yes/No Other Info	Likely Source of Contamination
<b>Inorganic Contaminants</b>								
Barium	2	2	0.0202	ppm	N/A	2019	No	Discharge of drilling wastes, discharge from metal refineries, erosion of natural deposits
Fluoride	4	4	0.887	ppm	N/A	2018	No	Erosion of natural deposits, water additive which promotes strong teeth, discharge from fertilizer and aluminum factories
Nitrate-Nitrite	10	10	0.038	ppm	N/A	2020	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
<b>Copper/Lead</b>								
Copper	1.3	AL=1.3	0.137 90th% value	ppm	N/A	2019	0 sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits, leaching from wood preservatives
Lead*	0	AL=15	1.84 90th% value	ppb	N/A	2019	0 sites exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits

## 2020 TEST RESULTS FOR SOUTH CENTRAL REGIONAL WATER DISTRICT'S EMMONS COUNTY WATER TREATMENT PLANT (cont.)

Contaminant	MCLG	MCL	Level Detected	Unit Measurement	Range	Date (Year)	Violation Yes/No Other Info	Likely Source of Contamination
<b>Disinfectants</b>								
Chlorine	MRDLG =4	MRDL =4.0	1.4	ppm	1.12 to 1.64	2020	No	Water additive used to control microbes
<b>Radioactive Contaminants</b>								
Radium, combined (226, 228)	N/A	5	0.7679	pCi/l	N/A	2018	No	Erosion of natural deposits
Uranium, combined	N/A	30	ND	ppb	N/A	2018	No	Erosion of natural deposits
<b>Unregulated Contaminants</b>								
Alkalinity, Carbonate	N/A	N/A	3	ppm	No Detect to 3.0	2019	No	N/A
Bicarbonate as HCO <sub>3</sub>	N/A	N/A	225	ppm	191 to 225	2020	No	N/A
Bromide	N/A	N/A	41	ppm	31 to 41	2020	No	N/A
<b>Disinfection By-Products (Excluding: TTHM/HAA5)</b>								
Bromate	N/A	10	2	ppb	No Detect to 3.3	2020	No	By-product of drinking water chlorination
<b>Stage 2 Disinfection By-Products</b>								
HAA5	N/A	60	29	ppb	20.36 to 34.35	2020	No	By-product of drinking water chlorination
TTHM	N/A	80	58	ppb	32.4 to 76.75	2020	No	By-product of drinking water chlorination
<b>Microbiological Contaminants</b>								
Turbidity**	N/A	TT=.3	0.049	NTU	N/A	2020	100% of samples met Turbidity Limits	Soil runoff
<b>Total Organic Carbon Removal</b>								
Alkalinity, Source	N/A	N/A	185	Mg/l	156.00 to 185.00	2020	No	Natural erosion, certain plant activities, certain industrial wastewater discharges
Carbon, Total Organic (TOC) - Finished	N/A	N/A	1.84	Mg/l	1.14 to 1.84	2020	No	Naturally present in the environment
Carbon, Total Organic (TOC)- Source	N/A	N/A	7.62	Mg/l	3.76 to 7.62	2020	No	Naturally present in the environment

\*\*Turbidity is a measure of the cloudiness of the water. The SCRWD Burleigh-North monitors it because it is a good indicator of the effectiveness of their filtration system. 100% of samples met turbidity limits.

## Surface Water Treatment Rule Monitoring Data:

Lowest Monthly Percentage of Samples Meeting Turbidity Limits= 100%

**Highest Single Measurement = 0.049**

EPA requires monitoring of over 80 drinking water contaminants. Those contaminants listed in the table above are the only contaminants detected in your drinking water.

\*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 Central Regional Water District is responsible for providing high quality drinking water but cannot control the variety of materials used in plumbing components. **Use water from the cold tap for drinking and cooking. 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 drinking 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>.

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 Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791).

Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make improvements in your water system. The costs of these improvements may be reflected in the rate structure. Rate adjustments may be necessary to address these improvements.

**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 microbiological contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).**

South Central Regional Water District works diligently to provide top quality water to every tap. We ask that all our customers help us protect our water sources, which are the heart of our community, our way of life and our children's future. Please contact our office @ (701) 258-8710 if you have any questions.

