



2020 CONSUMER CONFIDENCE REPORT
STANDING ROCK RURAL WATER SYSTEM
For communities of Wakpala, Kenel, Little Eagle, Bullhead,
Cannonball, Porcupine, Fort Yates, City of Solen, and City of McLaughlin
For all Rural Water Users
PWSID# 084690510

The purpose of this report is to inform you of the quality of the drinking water that we provide. We are required by the U.S. Environmental Protection Agency (EPA) to test our water frequently for the presence of over 80 different substances, and as a surface water treatment plant, we monitor the water continually to assure compliance with the Safe Drinking Water Act (SDWA). The EPA Region 8 Office in Denver, Colorado reviews all of our testing data to ensure that we are providing safe drinking water to our users, and we are complying with EPA regulations.

The Standing Rock Rural Water System (RWS) Water Treatment Plant, located approximately 14 miles north of the community of Mobridge, SD along highway 1806, pumps raw water from Lake Oahe and treats the water to regulatory standards. The Standing Rock RWS water treatment plant is a surface water plant with flocculators, sedimentation basins, and microfiltration membranes. Following the treatment process the finished water is injected with chlorine prior to pumping to the distribution system. The Standing Rock RWS water treatment plant produces and pumps finished water to the community of Wakpala, SD, the 5 million gallon Kline Butte Tank, the 75,000 gallon storage reservoir serving the community of Kenel, SD, and the 60,000 gallon underground storage reservoir near the Grand River Casino which then pumps to a 50,000 gallon elevated reservoir which serves the Grand River Casino. From the Kline Butte area the distribution system branches west to serve the communities of Bear Soldier South, Bullhead, SD (105,000 gallon steel tank), and Little Eagle, SD (150,000 gallon tank). Recently, the City of McLaughlin, SD has been added as a consecutive system. With the exception of the City of McLaughlin, the areas mentioned thus far have been part of the Standing Rock RWS Water Treatment Plant service area for a number of years.

The distribution system to the north of Kline Butte used to be served via the Fort Yates Water Treatment Plant in Fort Yates, ND until the entire service area was added to the Standing Rock Water Treatment Plant in October 2017. The expanded distribution system now serves the community of Fort Yates, ND (1.5 million gallon Composite Tank). North of Fort Yates, the distribution system branches west to serve the community of Porcupine, ND (via the Porcupine Booster Station and 100k gallon storage tank). The distribution system also continues north through the Cannonball Booster Station and Walker Bottom Booster Station and serves a 159,000 gallon storage reservoir which supplies the Prairie Knights Casino. Last, the distribution system continues north and serves the community of Cannonball, ND (210,000 gallon storage tank) and to the west we currently serve the community of Solen, ND as a consecutive system. In addition, the distribution system serves many rural homes along the entire south-

to-north corridor with rural water. This report shows the water quality produced by the Standing Rock RWS Water Treatment Plant and what that water quality means to you the consumer.

If you have any questions concerning this report, our water system, or water quality concerns, please contact Randez Bailey, Director of Standing Rock Municipal, Rural & Industrial (MR&I) Program at (701) 854-7477. If you are aware of individuals who need help with the appropriate language translation, please call Standing Rock MR&I.

The Standing Rock RWS Water System would appreciate community segment employees and other large volume water customers post copies of this Consumer Confidence Report (CCR) in visible locations, or distribute them to tenants, residents, patients, students, or employees on the water system.

The Standing Rock RWS routinely monitors for contaminants in your drinking water according to Federal laws. We monitor monthly for coliform bacteria, all samples have been satisfactory, no detects. As authorized and approved by EPA, we have reduced monitoring requirements for certain contaminants to less often than once a year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of our data (e.g. for organic contaminants), though representative, may be more than one year old. A specific listing of the contaminants can be obtained from the Standing Rock MR&I Office.

In order to ensure that tap water is safe to drink, the Environmental Protection Agency prescribes regulations which 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.

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 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.

2020 Water Quality Test Results

This section of the report contains a table with terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Action Level (AL) – the concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which 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 below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

NA – Not applicable

Parts per million (ppm) or Milligrams per liter (mg/l) – ppm is a measure of the concentration of a contaminant in water, 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) - ppb is a measure of the concentration of a contaminant in water, 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) – picocuries per liter is a measure of the radioactivity in water.

Public Water System Identification Number (PWSID) – a unique identifier number assigned by the EPA.

Running Annual Average (RAA) – running annual arithmetic average computed quarterly or monthly depending on the contaminant evaluated.

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

Maximum Residual Disinfectant Level (MRDL) - The highest level of disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

All sources of drinking water are subject to potential contamination by substances that are naturally occurring or manmade. These substances can be microbes, inorganic or organic chemicals and radioactive substances. All 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 at 1-800-426-4791.

The table includes only the contaminants that were detected by the laboratory. The laboratory did not detect most of the contaminants that EPA requires us to monitor.

**STANDING ROCK RWS WATER TREATMENT PLANT
2020 SAMPLE RESULTS**

| Contaminant | Violation Y/N | Level Detected | Date | Unit Measurement | MCLG | MCL | Likely Source of Contamination |
|---|---------------|--|-----------------|---------------------------|--------|----------|--|
| Coliform Bacteria | N | 96 samples 4-detects | Monthly 2020 | Presence or Absence | NA | NA | Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacterial may be present. |
| Radioactive Contaminants | | | | | | | |
| Radium Combined (226,228) | N | 0.598 | 9/18/19 | pCi/L | 0 | 5 | Erosion of natural deposits |
| Disinfection Byproducts/Organics | | | | | | | |
| Total Trihalomethanes (TTHM) DBPs | N | Range (18.49 - 30.51) RAA-25.26 | Qtrly. 2020 | ppb | 0 | 80 | Byproduct of drinking water disinfection |
| Total Haloacetic Acids (HAA5) DBPs | N | Range (11.43 - 21.28) RAA- 16.09 | Qtrly. 2020 | ppb | NA | 60 | Byproduct of drinking water disinfection |
| Inorganic Contaminants | | | | | | | |
| Fluoride | N | 0.30 Range 0.273 – 0.273 | 9/8/20 | ppm | 4 | 4 | Erosion of natural deposits; water additive to promote strong teeth; discharge from fertilizer and aluminum factories. |
| Chlorine | N | Range (.83 – 2.70) RAA = 2.10 | Monthly 2020 | ppm | MRDL=4 | MRDL=4 | Water additive used to control microbes. |
| Nitrate=Nitrite (As N) | N | 0.35 Range – 0.059 – 0.35 | 2020 | ppm | 10 | 10 | Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits. |
| Barium | N | 0.016 | 9/8/20 | ppm | 2 | 2 | Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits |
| Cyanide | N | 14 | 9/8/20 | ppb | 200 | 200 | Discharge from plastic and fertilizer factories; Discharge from steel/metal factories |
| Selenium | N | 0.001 | 9/8/20 | ppb | 50 | 50 | Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines |
| Copper | N | 20 samples 90 th percentile 0.0415 | 6/12/19 | ppm | 1.3 | A.L.=1.3 | Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives. |
| Lead | N | 20 samples 90 th percentile 1.67 | 6/12/19 | ppb | 0 | A.L.=15 | Corrosion of household plumbing systems; erosion of natural deposits. |
| <p>Turbidity – Turbidity is monitored continually with inline turbidimeters at the Standing Rock RWS water treatment plant. The turbidity results for 2020 were all well within EPA parameters of <0.3 nephelometric turbidity units (ntu). 4 hour ntu readings are recorded and reported monthly to EPA. The highest turbidity measurement for the Standing Rock RWS plant was 0.146 ntu, with 100% of turbidity samples meeting turbidity limits of 1 ntu. Turbidity is a measurement of the cloudiness of the water. We monitor it because it is an indicator of the effectiveness of our filtration system.</p> | | | | | | | |

| CCR Definitions for the RTCR | |
|--|--------------------------|
| CCR Definition | Citation |
| Level I Assessment: A Level I assessment is a study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in our water system. | 40 CFR 141.153(c)(4)(i) |
| Level 2 Assessment: A Level 2 assessment is a very detailed study of the water system to identify potential problems and determine (if possible) why and <i>E. coli</i> MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions. Please note: <i>E. coli</i> was NOT found in our water system. | 40 CFR 141.153(c)(4)(ii) |

| CCR Health Effect Language for the RTCR: Level 1 and Level 2 Assessment NOT due to <i>E. coli</i> Violation | |
|---|----------------------------|
| CCR Language | Citation |
| Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, waterborne pathogens may be present or that a potential pathway exists through which contamination may enter the drinking water distribution system. We found coliforms indicating the need to look for potential problems in water treatment or distribution. When this occurs, we are required to conduct assessments to identify problems and to correct any problems that were found during these assessments. | 40 CFR 141.153(h)(7)(i)(A) |
| During the past year we were required to conduct one Level I Assessment. One Level I assessment was completed. In addition, we were required to take no corrective actions. | 40 CFR 141.153(h)(7)(i)(B) |
| During the past year one Level 2 Assessment was required to be completed for our water system. One Level 2 Assessment was completed. In addition, we were required to take 1 corrective action and we completed this corrective action. We confirmed to EPA our sampling plan did not need to be changed. | 40 CFR 141.153(H)(7)(i)(C) |

We completed the corrective action protocols for level I & II assessments. The water has been and will be safe to consume by our consumers.

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.

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| More Information About Certain Contaminants |
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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. The Standing Rock RWS 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 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>.

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant you should ask advice from your health care provider.

Some people who drink trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

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 (800-426-4791).

MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health affect.

In our continuing efforts to maintain a safe and dependable water supply it may be necessary to make adjustment and improvements to our system which will benefit our customers. The water treatment plant operators are in consultation with professionals in the field of water treatment when making adjustments as needed.

We at the Standing Rock RWS work on a daily basis to provide top quality water to every tap on our system. 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 feel free to contact Randez Bailey, Director of Standing Rock MR&I at (701) 854-7477 if you have questions concerning this report or your water system.