

Annual Drinking Water Quality Report

City of Beach, North Dakota

2021

We are pleased to present to you this year's ***Annual Drinking Water Quality Report***. This report is designed to inform you about the safe clean water we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and protect our water resources. We are committed to ensuring the quality of your water. Our water source is the Southwest Water Authority (SWA).

The North Dakota Department of Environmental Quality has prepared a Source Water Assessment for the City of Beach and the Southwest Water Authority. Information regarding this program is available upon request. The source water assessment is complete and available at SWA. (Contact the SWA office for more information.)

The City of Beach and Southwest Water Authority 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 Environmental Quality has determined that our source water is "***moderately susceptible***" to potential contaminants. No significant sources of contamination have been identified.

This report shows our water quality and what it means.

If you have any questions about this report or concerning your water utility, please contact Kimberly Gaugler, City Auditor, @ 701-872-4103. 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 first and third Monday of every month at 7:00 p.m. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Kimberly at the number listed above.

The City of Beach would appreciate it if large volume water customers would please post copies of this ***Annual Drinking Water Quality 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.

The City of Beach routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table shows the results of our monitoring for the period of January 1st to December 31st, 2021.

As authorized and approved by 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 our data [e.g., for inorganic contaminants], 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 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 production and can also, come from gas stations, urban stormwater 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, 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:

(NA) - Not applicable

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 ($\mu\text{g/l}$) - 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) - Picocuries 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.

2021 Test results for the city of Beach, ND & Southwest Water Authority								
<u>Contaminant</u>	<u>MCLG</u>	<u>MCL</u>	<u>Level Detected</u>	<u>Unit</u>	<u>Range</u>	<u>Date</u>	<u>Violation Yes/No</u>	<u>Likely Source of Contamination</u>
Inorganic Contaminants								
Nitrate-Nitrite	10	10	0.073	ppm	N/A	2021	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Lead/Copper								
Copper	1.3	AL=1.3	0.106 90 th % value	ppm	N/A	2020	0 Sites Exceeded AL	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
Lead*	0	AL=15	No Detect 90 th % value	ppb	N/A	2020	1 Site Exceeded AL	Corrosion of household plumbing systems, erosion of natural deposits
Total Organic Carbon Removal								
Alkalinity, Source Water	N/A	N/A	171	Mg/l	162 - 171	2021	N/A	Natural erosion, plant activities, and certain industrial waste discharges
Total Organic Carbon Source Water	N/A	TT	5.05	Mg/l	2.97 - 5.05	2021	N/A	Naturally present in the environment
Total Organic Carbon, Finished Water	N/A	TT	4.4	Mg/l	1.99 - 4.40	2021	N/A	Naturally present in the environment
Disinfectants								
Chloramines	MRDLG =4	MRDL =4.0	2.2	ppm	0.3 to 3.6	2021	No	Water additive used to control microbes
Microbial Contaminants								
Turbidity**	N/A	TT=.3	0.24	NTU	N/A	2021	No	Soil Runoff
Stage 2 Disinfection By-Products (System-Wide)								
HAA5	N/A	60	15	ppb	N/A	2021	No	Water additive used to control microbes
TTHM	N/A	80	9	ppb	N/A	2021	No	Water additive used to control microbes
Unregulated Contaminants								
Alkalinity, Carbonate	N/A	N/A	3	ppm	ND - 3	2021		N/A
Bicarbonate as HCO ₃	N/A	N/A	209	ppm	197-209	2021	No	N/A
Radioactive Contaminants								
Gross Alpha, Including RA, Excluding RN & U	15	15	0.359	pCi/l	N/A	2018	No	Erosion of natural deposits

Surface Water Treatment Rule Monitoring Data:
Lowest Monthly Percentage of Samples Meeting Turbidity Limits = 100%
Highest Single Measurement = 0.24

*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 City of Beach 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 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 at <http://www.epa.gov/safewater/lead>.

**Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. 100% of samples met turbidity limits.

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

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.

Drinking water, including bottled water, may 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 effects can be obtained by calling the EPA's Safe Drinking Water Hotline (1-800-426-4791).

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 two 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 effect.

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/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 Drinking Water Hotline (800-426-4791).

Thank you for allowing us to provide your family with clean, quality water this year. To maintain a safe and dependable water supply we sometimes need to make improvements that will benefit all our customers. These improvements sometimes require rate structure adjustments.

We work 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 call our office at 701-872-4103 if you have questions about your city's water system.