

CITY OF GRAND FORKS 2020 ANNUAL DRINKING WATER QUALITY REPORT

Sources of Grand Forks drinking water include surface water from the Red River and the Red Lake River. The treatment plant has the ability to independently pump from each river or to blend the two sources. Blending of the two rivers can improve river water quality which can in turn reduce treatment costs. 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 Environmental Quality has determined that our source water is moderately susceptible to potential contaminants.

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) 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. In order to ensure that tap water is safe to drink, EPA 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.

HEALTH INFORMATION

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 at (1-800-426-4791).

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. Grand Forks Water Utility 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>. The Grand Forks Water Utility participates in lead and copper testing programs and has met the criteria for reduced monitoring. The latest results have been included in the Water Quality Statistics table.

CRYPTOSPORIDIUM

Cryptosporidium is a microscopic parasite that is found in domestic and wild animals. When ingested, it can cause fever and many gastrointestinal symptoms. Grand Forks source water was monitored during 2017. During this time, the organism was detected in two of nine source water samples. Monitoring was completed in compliance with enhanced surface water treatment rules. Monitoring was not required in 2020.

TO LEARN MORE...

To learn more about water quality issues you may call the Water Treatment Plant at 701-746-2595. To participate in water decisions, you can attend Committee of the Whole meetings or City Council meetings at City Hall. A schedule of these meetings is available at the Mayor's office or www.grandforksgov.com.

CONTAMINANTS THAT MAY BE PRESENT IN SOURCE WATER

- **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 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 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.

2020 TAP WATER QUALITY STATISTICS

The EPA requires monitoring of over 80 drinking water contaminants. Only those contaminants detected in your drinking water are listed in the table below. Data is from 2017 - 2020.

Substance	MCLG	MCL	Highest Compliance Level	Units	Range of Detections	Date	Source of Substance
Inorganic Substances							
Barium	2	2	0.0159	ppm		4/4/2017	Erosion of natural deposits; Discharge of drilling wastes; Discharge from metal refineries
Fluoride	4	4	0.663	ppm		4/4/2017	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories
Nitrate-Nitrite	10	10	0.158	ppm	N/A	5/12/2020	Runoff from fertilizer use; Leaching from septic tanks; Erosion of natural deposits
Total Organic Carbon Removal							
Alkalinity-Source			232	MG/L	130.00 to 232.00	2/29/2020	Naturally present in the environment
Carbon, Total Organic (TOC)-Finished			9.2	MG/L	3.60 to 9.20	12/31/2020	Naturally present in the environment
Carbon, Total Organic (TOC)-Source			17.5	MG/L	10.30 to 17.50	6/30/2020	Naturally present in the environment
Microbiological Substances							
Total Coliform Bacteria ¹ Fecal Coliform and E. Coli			0% (positive)				Naturally present in the environment
Turbidity ²			1.015	NTU			Soil runoff
Stage 2 Disinfection Byproducts (TTHM/HAA5)							
Total Trihalomethanes (TTHM)		80	29	ppb	10.03 to 32.33	3/31/2020	By-product of drinking water disinfection
HaloAcetic5 (HAA5)		60	26	ppb	4.79 to 28.03	3/31/2020	By-product of drinking water disinfection
Disinfectants							
Chloramine	MRDL=4.0	MRDLG=4	2.7	ppm	2.4 to 2.9	2/29/2020	Water treatment additive used to control microbes
Lead and Copper							
Lead 90% Compliance Level		AL=15	5.71	ppb	1-60 sites>AL	12/2/2020	Corrosion of household plumbing systems; Erosion of natural deposits
Copper 90% Compliance Level		AL=1.3	0.0863	ppm	0-34 sites>AL	12/2/2020	Corrosion of household plumbing systems; Erosion of natural deposits

The State of North Dakota requires monitoring for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Data included in the above table is based on results from 2017 to 2020.

1. Coliform bacteria, naturally present in the environment, are used as an indicator of potentially harmful bacteria. The total coliform result is the highest percentage of monthly samples that showed a positive result for total coliform bacteria.
2. The turbidity result is the highest single measurement. Monitoring is based on the lowest monthly percentage of samples meeting the limit of 0.5 NTU. Our lowest monthly percentage meeting the limit was 100%. Turbidity is a measure of the cloudiness of water. Regular monitoring is a good indication of the effectiveness of the filtration system. Turbidity has no health effects; however, it can interfere with disinfection and provide a medium for microbial growth.

UNREGULATED CONTAMINANT MONITORING RULE (UCMR)

The City of Grand Forks was selected by EPA to sample for thirty unregulated contaminants during 2020. Samples were taken two times from source water locations, the entry point (EP) to the distribution system, within the distribution systems (DS), and the maximum residence (MR) time within the distribution system. Only those contaminants detected in are listed in the table below.

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. Should you have any questions, please contact the Grand Forks Water Department at 746-2595.

Unregulated Contaminant	Average value at Red Lake River sampling point (ug/L)	Average value at Red River sampling point (ug/L)
Bromide	18.2J (Range: 0.00 to 18.2J)	57.05J (Range: 31.3J to 82.8)
Total Organic Carbon	11,405 (Range: 9,610 to 13,200)	8,675 (Range: 7,910 to 9,440)
Unregulated Contaminant	Average value at Entry Point (EP) sampling point (ug/L)	
Manganese	2.35 (Range: 2.2 to 2.5)	
Unregulated Contaminant	Average value in Distribution System (DS) (ug/L)	
Bromochloroacetic Acid	1.21 (Range 0.69 to 1.7)	
Bromodichloroacetic Acid	0.68 (Range 0.00 to 0.80)	
Dichloroacetic Acid	14.45 (Range: 10.5 to 18.6)	
HAA9 Group	21.36 (Range: 16.8 to 27.8)	
Total Brominated HAAs	1.54J (Range: 0.69J to 2.4)	
Haloacetic Acids (Total)	19.97 (Range: 14.8 to 26.4)	
Monochloroacetic Acid	3.1 (Range: 0.00 to 3.6)	
Trichloroacetic Acid	4.71 (Range: 3.7 to 5.5)	
Unregulated Contaminant	Average value at Maximum Residence (MR) sampling point (ug/L)	
Bromochloroacetic Acid	1.20 (Range: 0.79 to 1.6)	
Bromodichloroacetic Acid	0.59 (Range 0.51 to 0.66)	
Dichloroacetic Acid	15.7 (Range: 12.2 to 19.2)	
HAA9 Group	24.4 (Range: 18.9 to 29.9)	
Total Brominated HAAs	1.75J (Range: 1.3J to 2.2)	
Haloacetic Acids (Total)	22.6 (Range: 16.6 to 28.6)	
Monochloroacetic Acid	3.8 (Range: 0.00 to 3.8)	
Trichloroacetic Acid	4.95 (Range: 4.4 to 5.5)	

J: A data qualifier, estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

GLOSSARY OF UNITS

PPM: part per million or milligram per liter

PPB: part per billion or microgram per liter

NTU: Nephelometric Turbidity Units

Maximum Contaminant Level Goal

(MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLG's allow for a margin of safety.

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

Action Level (AL): The concentration of a contaminant, which if exceeded, triggers a treatment or other requirement which a water system must follow.

Maximum Contaminant Level (MCL):

The highest level of a contaminant that is allowed in drinking water. MCL's are set as close to the MCLG's as feasible using the best available treatment technology.

Maximum Residual Disinfectant Level

Goal (MRDLG): The level of a drinking water disinfectant below, which there is no known or expected risk to health. MRDLG's do not reflect the benefits of the use of disinfectants to control microbial contaminants.

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.

NA: not applicable

Highest Compliance Level: The highest level of that contaminant used to determine compliance with a National Primary Drinking Water Regulation.

Range of Detections: The lowest to the highest result value recorded during the required monitoring timeframe for systems with multiple entry points.

ADDITIONAL INFORMATION

The Grand Forks Water Utility strives to provide quality drinking water in sufficient quantity to meet the needs of the public. It is our goal to do so in a safe, cost effective manner while remaining in compliance with Federal, State, and Local guidelines. This report is a part of maintaining compliance with the Environmental Protection Agency's (EPA) guidelines. The information in this document covers tap water treated by the City of Grand Forks Water Treatment Plant. This report does not supply information for bottled water or rural water systems.

The Grand Forks Water Department would appreciate it if large volume water treatment plant water customers post copies of this report or distribute them to tenants, residents, patients, students, or employees, so individuals who consume water, but do not receive a water bill can learn about our water system.

For more information on drinking water quality, wastewater, or environmental concerns please contact 738-8740. If you are aware of non-English speaking individuals who need help with the appropriate language translation, please call Grand Forks Water Treatment at 746-2595.