



Grand Forks Air Force Base Drinking Water Quality Report 2017

Is my water safe to drink?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a summary of 2017's water quality. We are committed to providing you with information, because informed customers are our best allies.

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Where does my water come from?

All non-emergency-use water used by GFAFB is purchased from the City of Grand Forks. The 319th Civil Engineer Squadron maintains the water distribution system on GFAFB and will notify the supplier if daily checks indicate additional chlorination is needed. The City of Grand Forks obtains their water from the Red River and the Red Lake River. The Red River and Red Lake River are surface water sources.

Source water assessment and its availability

For the purposes of this report, the City of Grand Forks' Department of Drinking Water is designated as a "supplier" when referring to water sources. To review Source Water Assessments or Wellhead Protection Plans contact the appropriate supplier.

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 (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).

If you are aware of non-English speaking individuals who need help with language translation please call Public Affairs at (701) 747-7072

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 Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791). The sources of drinking water (both tap water 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: 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 production, and can also come from gas stations, urban stormwater runoff, and septic systems; 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.



Additional information for Lead

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 Air Force Base- ND1800413 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 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>.

How can I get involved?

If you have concerns about water quality or would like to participate in water decisions you can attend the Service/Safety Committee meetings or City Council meetings at City Hall. A schedule of these meetings is available at the Mayor's office or www.grandforksgov.com

Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of 2017. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions below the table.

Grand Fork AFB

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Units	Range		Sample Date	Violation	Typical Source
					Low	High			
Disinfectants & Disinfection By-Products									
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)									
Chloramine (as Cl ₂)	4	4	1.8	ppm	1.163	2.18	2017	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	NA	60	29	ppb	3.35	29.19	2017	No	By-product of drinking water disinfection
TTHMs [Total Trihalomethanes]	NA	80	39	ppb	16.84	27.57	2017	No	By-product of drinking water disinfection
Contaminants	MCLG	Action Limit (AL)	90th Percentile	Units	Sample Date	# Samples Above AL	Exceeds Standard	Typical Source	
Inorganic Contaminants— Tested at customer's taps. Testing is done every 3 years.									
Copper	1.3	1.3	0.15	ppm	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead	0	15	1	ppb	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	

City of Grand Forks Department of Water

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect in Your Water	Units	Range		Sample Date	Viola- tion	Typical Source
					Low	High			
Disinfectants & Disinfection By-Products									
(There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants)									
Chloramine (as Cl ₂)	4	4	2.7	ppm	2.6	2.8	2017	No	Water additive used to control microbes
Haloacetic Acids (HAA5)	NA	60	34	ppb	10.13	31.39	2017	No	By-product of drinking water chlorination
TTHMs [Total Trihalome- thanes]	NA	80	43	ppb	15.15	30.87	2017	No	By-product of drinking water disinfection
Inorganic Contaminants									
Barium	2	2	0.0159	ppm	NA	NA	2017	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Fluoride	4	4	0.663	ppm	NA	NA	2017	No	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer & aluminum factories
Nitrate - Nitrite	10	10	0.03	ppm	NA	NA	2017	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Radioactive Contaminants									
Gross Alpha (Including RA, Excluding RN & U)	0	15	1.1	pCi/L	NA	NA	2015	No	Erosion of natural deposits
Radium (combined 226/228)	0	5	0.29	pCi/L	NA	NA	2015	No	Erosion of natural deposits
Total Organic Carbon Removal									
Alkalinity – source	NA	NA	283	mg/L	150	283	2017	No	Naturally present in the environment
Carbon, Total Organic (TOC) Finished	NA	NA	8.66	mg/L	5.23	8.66	2017	No	Naturally present in the environment
Carbon, Total Organic (TOC) Source	NA	NA	16.7	mg/L	9.45	16.7	2017	No	Naturally present in the environment
Unregulated Contaminants									
Alkalinity, Carbonate	NA	NA	12	ppm	NA	NA	2017	No	Naturally present in the environment
Bicarbonate as HCO ₃	NA	NA	87	ppm	NA	NA	2017	No	NA
Calcium	NA	NA	49.9	ppm	NA	NA	2017	No	NA
Calcium Hardness	NA	NA	166	ppm	79	166	2017	No	Erosion of natural deposits
Chloride	NA	NA	11.3	ppm	NA	NA	2017	No	NA
Conductivity @ 25 C UM- HOS/CM	NA	NA	498	umho/ cm	338	498	2017	No	NA
Hardness, Total (as CaCO ₃)	NA	NA	210	ppm	116	210	2017	No	Erosion of natural deposits
Magnesium	NA	NA	9.8	ppm	NA	NA	2017	No	NA
Nickel	NA	NA	0.00177	ppm	NA	NA	2017	No	NA
pH	NA	NA	9.72	pH	9.01	9.72	2017	No	NA

Contaminants	MCLG or MRDLG	MCL, TT, or MRDL	Detect In Your Water	Units	Range		Sample Date	Violation	Typical Source
					Low	High			
Unregulated Contaminants (continued)									
Potassium	NA	NA	4.1	ppm	NA	NA	2017	No	NA
Sodium	NA	NA	12.2	ppm	NA	NA	2017	No	NA
Sodium Adsorption Ratio	NA	NA	0.41	obsvns	NA	NA	2017	No	NA
Sulfate	NA	NA	102	ppm	89	102	2017	No	NA
Total Dissolved Solids (TDS)	NA	NA	232	ppm	NA	NA	2017	No	NA
Temperature (Centigrade)	NA	NA	23.3	C	4.1	23.3	2017	No	NA
Zinc	NA	NA	0.00111	ppm	NA	NA	2017	No	NA
Contaminants	MCLG	AL	90th Percentile	Units	Sample Date	# Samples Above AL	Exceeds Standard	Typical Source	
Inorganic Contaminants									
Copper - action level at consumer taps	1.3	1.3	0.061	ppm	2017	0	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Lead - action level at consumer taps	0	15	6.06	ppb	2017	2	No	Corrosion of household plumbing systems; Erosion of natural deposits	
Surface Water Treatment Rule Monitoring Data									
Lowest Monthly Percentage of Samples Meeting Turbidity Limits = 100 Highest Single Measurement = 0.26									
Unit Descriptions									
Term	Definition								
ppm	ppm: parts per million, or milligrams per liter (mg/L)								
ppb	ppb: parts per billion, or micrograms per liter (µg/L)								
mg/L	mg/L: Number of milligrams of substance in one liter of water								
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)								
NA	NA: not applicable								
ND	ND: Not detected								
NR	NR: Monitoring not required, but recommended.								
Important Drinking Water Definitions									
Term	Definition								
MCLG	MCLG: Maximum Contaminant Level Goal: 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.								
MCL	MCL: Maximum Contaminant Level: 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.								
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.								
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.								

Important Drinking Water Definitions	
Variations and Exemptions	Variations and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. 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.
MRDL	MRDL: Maximum residual disinfectant level. 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.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level
90th Percentile	The 90th percentile rule is a mathematical calculation that determines what sample value represents the 90th percentile. For example, 10 samples are collected, the highest sample value would be thrown out and the next highest would represent the 90th percentile. This 90th percentile is then compared to the AL to evaluate the distribution system materials.
Highest Compliance Level	The highest level of that contaminant used to determine compliance with a National Primary Drinking Water Regulation.
Range	The lowest to the highest detected result value recorded during the required monitoring timeframe for systems with multiple entry points.

Information on 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 has been monitored monthly for this organism in 2007 and 2008. No cryptosporidium was found in our source water during 2007. In 2008, the organism was detected in one of twelve samples. Monitoring was accomplished and results provided to NDDH. At this time, no additional sampling is required as all monitoring requirements have been met.

For more information please contact:

Bioenvironmental Engineering

Email: usaf.grandforks.319-mdg.mbx.319mdossgojbioe@mail.mil

Phone: 701-747-5596



GFAFB would appreciate it if large volume water customers post copies of the CCR 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. For your convenience a copy of this CCR is on file at the GFAFB Library and also available on the GFAFB public internet website, <http://www.grandforks.af.mil>.