

Terms for this Report

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.

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 Residual Disinfection Level Goal (MRDLG):

The level of disinfection below which there are known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Maximum Residual Disinfection Level (MRDL):

The highest level of disinfection allowed. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

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

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

parts per million (ppm): A unit measure equivalent to one cent in \$10,000.

parts per billion (ppb): A unit measure equivalent to one cent in \$10,000,000.

Safe Drinking Water Act (SDWA): Federal law that set drinking water regulations.

pCi/L, picocuries per liter: A measure of radioactivity in water

Nephelometric turbidity unit (NTU): A measure of turbidity in water.

Highest Level Found: Laboratory analytical result for a contaminant; the highest level of that contaminant found; this value is evaluated against an MCL or AL to determine compliance.

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

Public Involvement/Good Faith Postings

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>.

The suppliers' drinking water monitoring information was obtained from the City of Grand Forks.

If you have technical questions regarding this report, please contact GFAFB Bioenvironmental Engineering at (701) 747-5596.

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

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

Postage

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1599 J Street
Grand Forks, ND 58205
OFFICIAL BUSINESS



CONSUMER CONFIDENCE REPORT (CCR)

2014



GRAND FORKS AFB

INTRODUCTION

This is an annual report on the quality of water delivered by Grand Forks AFB (GFAFB), North Dakota. Under the "Consumer Confidence Reporting (CCR) Rule" of the federal Safe Drinking Water Act (SDWA), community water systems are required to report this water quality information to the consuming public. Presented in this report is information on the source of our water, its constituents and the health risks associated with any contaminants. **We are pleased to report that our drinking water is safe and meets all state and federal requirements.**

WHERE DOES OUR 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 the Red Lake River are surface water sources. 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.

ANALYSIS OF GRAND FORKS AFB DRINKING WATER

Our system is constantly monitored for various contaminants in the water supply to meet all regulatory requirements. Bioenvironmental Engineering Flight personnel draw water from the distribution system and residential taps to test for lead, copper, pH, chlorine, and bacteriological quality. All water samples are sent to an accredited laboratory and tested using EPA approved laboratory methods. The North Dakota Department of Health (NDDH) dictates all sampling schedules for drinking water testing. The tables to the right list only those contaminants that had some level of detection. Many other contaminants have also been analyzed but were not present or were below the detection limits of the lab equipment.

*The turbidity result (See Table 1) is the highest single measurement.

Monitoring for the state requirement is based on the lowest monthly percentage of samples meeting the limit of 0.5 NTU. The lowest monthly percentage meeting the limit was 100%. Turbidity is a measure of the cloudiness of water and is monitored because it 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. The NDDH requires that certain contaminants be monitored less than once per year because the concentrations of these contaminants are not expected to vary from year to year. Some data, while representative, may be more than 1 year old. EPA requires different reporting methodologies for different contaminants.

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 NDH. At this time, no additional sampling is required as all monitoring requirements have been met.

Table 1 - City of Grand Forks Department of Water

Contaminant	Date	MCLG	MCL	Highest Level Found	Range of Detection	Exceeded Standard	Likely Source of Contamination
Inorganic Substances							
Arsenic	2014	0 ppb	10 ppb	1.09 ppb	N/A	No	Erosion of Natural Deposits
Barium	2010	2 ppm	2 ppm	0.0126 ppm	N/A	No	Erosion of Natural Deposits
Fluoride	2010	4 ppm	4 ppm	1.11 ppm	N/A	No	Erosion of Natural Deposits/Fertilizer Use/Water Additive
Nitrate-Nitrite	2014	10 ppm	10 ppm	0.34 ppm	N/A	No	Erosion of Natural Deposits/Fertilizer Use/Septic Systems
Total Organic Carbon Removal							
Alkalinity, Source	2014	N/A	N/A	239 mg/L	183-239 mg/L	No	Naturally Present in the Environment
Carbon, Total Organic (TOC) - Finished	2014	N/A	N/A	8.08 mg/L	4.85-8.08 mg/L	No	Naturally Present in the Environment
Carbon, Total Organic (TOC) - Source	2014	N/A	N/A	18.43 mg/L	11.5-18.43 mg/L	No	Naturally Present in the Environment
Microbiological Substances							
*Turbidity	2014	N/A	TT	0.19 NTU	N/A	No	Soil Runoff

Table 2 - Grand Forks Air Force Base

Contaminant	Date	MCLG	MCL	Highest Level Found	Range of Detection	Exceeded Standard	Likely Source of Contamination
HaloAcetic Acids (HAA5) Stage 2 (1/1/14-12/31/2014)	2014	N/A	60 ppb	17 ppb	2.36-33.55 ppb	No	Disinfection Byproduct
Total Trihalomethanes (TTHM) Stage 2 (1/1/14-12/31/2014)	2014	N/A	80 ppb	31 ppb	15.51-68.34 ppb	No	Disinfection Byproduct
Chloramines	2014	4 ppm (MRDL)	4 ppm (MRDL)	1.8 ppm	0-2.16 ppm	No	Water Additive
Lead	2014	N/A	15 ppb (AL)	No detect	N/A	No	Plumbing Corrosion
Copper	2014	N/A	1.3 ppm (AL)	0.249 ppm (90%)	N/A	No	Plumbing Corrosion
Total Coliform Bacteria, Fecal Coliform, and E.coli	2014	0	<5% monthly samples	0	N/A	No	Naturally Present in the Environment, Human and Animal Fecal Waste

THE SAFE DRINKING WATER ACT

The Safe Drinking Water Act (SDWA) was first passed in 1977. It was amended in 1986 and again in 1996. As part of the 1996 amendments all customers must receive a report on the quality of their drinking water. This report covers the calendar year 2014. These results represent the latest tests performed on our water. Also included in the report are pertinent subjects such as water sources, water quality, and a description of terms used.

A FEW WORDS ABOUT WATER QUALITY

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 the water poses a health risk. More information about contaminants and potential effects can be obtained by calling EPA's 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 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 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, 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.

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. 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).

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. City of Grand Forks 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>.

NOTICE OF VIOLATION FOR GRAND FORKS AFB

There was one notice of violation for the 3rd Quarter monitoring period for insufficient reporting of disinfection byproducts. Records show that Grand Forks Air Force Base did not report the required chlorine/chloramine residual samples that were taken at the same time and location as total coliform samples for July, August, and September 2014. Sampling was conducted but results were not reported to the state. All water quality during this time met standards. Grand Forks AFB Bioenvironmental Engineering has improved their continuity of reporting procedures by updating their internal operating instructions. This update will alleviate record management errors in the future.