



City of Fort Morgan 2018 Consumer Confidence Report PWSID CO0144005

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2017 Water Quality Data All Testing Results Are From The C-BT Watershed

Dear Customer: We are pleased to present a summary of the water quality provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual Consumer Confidence Report to customers, in addition to other notices that may be required by law. This report details where our water comes from, what it contains and the risks our water testing and treatment are designed to prevent. The City of Fort Morgan is committed to providing the safest and most reliable water supply available. Informed customers are our best allies in maintaining safe drinking water. Please note: This report presents information regarding the water quality from the C- BT water supply only.

The City of Fort Morgan believes its customers must be informed of the quality of the water they are currently receiving.



Quality H₂O

Call us for information about the next opportunity for public participation in decisions about our drinking water at 1-970-370-6558 or on the City's web site at www.cityoffortmorgan.com

Overview of current and future water sources

On December 9, 1999, the City of Fort Morgan began operation of its Water Treatment Plant. The Fort Morgan Water Treatment Plant replaced the existing, poor quality ground water supply with high quality, C-BT surface water from Carter Lake, west of Loveland, CO.

Looking to the future: The City of Fort Morgan has been actively involved with the Northern Integrated Supply Project (NISP) since its inception in 2003 along with Morgan County Quality Water District and thirteen other front range entities. To date, the City of Fort Morgan has invested over one million dollars in NISP. NISP is a water storage project that will provide Fort Morgan's citizens and businesses with an addition 3,600 ACRE-FT of water helping to ensure future water supplies. The costs per ACRE-FT for the NISP Project are substantial, but in comparison to other water projects state wide, NISP is the most viable option for Fort Morgan at this time. For more information on the NISP project please visit www.gladereservoir.org.

Esta Información es importante. Si no la pueden leer, necesitan que alguien se la pueda traducir.

Terms and Abbreviations

The following definitions will help you understand the terms and abbreviations used in this report

<p>Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.</p> <p>Maximum Contaminate Level or (MCL): The highest level of a contaminant allowed in drinking water.</p> <p>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.</p> <p>Maximum Residual Disinfectant Level (MRDL): 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.</p> <p>Not Applicable (N/A): Does not apply or not available</p> <p>Picocuries per liter (pCi/L): Measure of the radioactivity in water.</p> <p>Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant, below which there is no known or expected risks to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.</p> <p>Nephelometric Turbidity Units (NTU): Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.</p>	<p>Parts per billion = Micrograms per liter (ppb = ug/l) One part per billion corresponds to one minute in 2,000 years, or a single penny in \$ 10,000,000.</p> <p>Parts per million = Milligrams per liter (ppm = mg/L) One part per million corresponds to one minute in two years or a single penny in \$ 10,000.</p> <p>Range (R): Lowest value to the highest value.</p> <p>Average: (x bar)- Typical value</p> <p>Violation: Failure to meet a Colorado Primary Drinking Water Regulation.</p> <p>Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.</p> <p>Formal Enforcement Action: Escalated action taken by the State (due to the risk to public health, or number or severity of violations) to bring a non-compliant water system back into compliance.</p> <p>Compliance Value: Single or calculated value used to determine if regulatory contamination level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (LRAA) and Locational Running Annual Average (LRAA).</p>	<p>Sample Size (n) - Number or count of values (i.e. number of water samples collected)</p> <p>Variance And Exemptions (V/E): Department permission not to meet a MCL or treatment technique under certain conditions.</p> <p>Health-Based: A violation of either a MCL or TT.</p> <p>Non-Health-Based: A violation that is not a MCL or TT.</p> <p>Gross Alpha: Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium.</p> <p>Level 1 Assessment—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.</p> <p>Level 2 Assessment—A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in our water system on multiple occasions.</p>
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The City of Fort Morgan Water Treatment Plant has a maximum treatment capacity of 10 million gallons per day. The Treatment Plant employs five full time plant operators who are responsible for the plant’s continuous operation and maintenance. The Treatment Plant operators perform over thirty water quality tests per day. The City of Fort Morgan Water Treatment Plant **did not** exceed any maximum contaminant levels in **2017**. The finished water produced in **2017** met and exceeded current and future State and Federal finished water quality standards.

The City of Fort Morgan routinely monitors for contaminants in your drinking water according to Federal and State Laws. The following tables show all detections found in the period of January 1, to December 31, 2017 unless otherwise noted. The State of Colorado requires the city to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. Therefore, some of the data, though representative, may be more than one year old. Violations and Enforcement Actions, if any, are reported in the next section of this report. **Note:** only detected contaminants sampled within the last five years appear in this report. If no tables appear in this section, that means that The City of Fort Morgan did not detect any contaminants in the last round of monitoring.

2017	Sample Date	Level Found	TT Requirement	TT Violation	Typical sources
<u>Turbidity</u>	August	<u>Highest single</u> measurement 0.072 NTU	Maximum 1 NTU for any single measurement	No	Soil runoff
<u>Turbidity</u>	December	<u>Lowest monthly</u> percent of readings below the TT requirement for our technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil runoff

Turbidity is sampled at the entry point to the distribution system.

Contaminant Name	Year	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL
Chlorine	December, 2017	<u>Lowest period</u> percentage of samples meeting TT requirement: 100%	0	10	No	4.0 ppm

Disinfectants sampled in the distribution system.
TT Requirement: If sample size is less than 40 no more than 1 sample is below 0.2 ppm. Typical Sources: Water additive used to control microbes.
Typical Sources: Water additive used to control microbes

Contaminant Name	90 th Percentile	Sample size	Unit of measure	90 th Percentile AL	Sample Sites above AL	90 th Percentile Exceedance	Typical Sources
<u>Copper</u>	07/17/2017 to 08/11/2017	30	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
<u>Lead</u>	08/11/2017	30	ppb	15	0	No	Corrosion of household plumbing systems; Erosion natural deposits

Lead and copper sampled in the distribution system.

Contaminant Name	Year	Average	Range Low–High	Number of Samples	Unit of Measure	Highest Compliance			MCL Violation	Typical Sources
						MCL	MCLG	Value		
<u>Chlorite</u>	2017	0.27	0.2 to 0.31	12	ppb	1.0	0.8	N/A	No	Byproduct of drinking water disinfection
<u>Total Haloacidic Acids (HAA5)</u>	2017	13.57	8.9 to 18.7	8	ppb	60	N/A		No	Byproduct of drinking water disinfection
<u>Total Trihalomethane (TTHM)</u>	2017	29.34	23.2 to 49	8	ppb	80	N/A		No	Byproduct of drinking water disinfection

Disinfection ByProducts (TTHMs, HAA5, and Chlorite) sampled in the distribution system.

Contaminant Name	Range	Units of	TT Minimum	TT	Violation	Typical Sources	
2017	Average	Low–High	Size	Measure	Ratio		
<u>Carbon Total</u>	1.49	1.4 to 1.63	12	Ratio	1.00	No	Naturally present in the environment

Total Organic Carbon (Disinfection Byproducts Precursor) percent removal ratio of raw and finished water.

Contaminant Name	Number of 2017 Samples Above or Below Level	Sample Size	TT/MRDL Requirement	TT/MRDL Violation	Typical Sources
Chlorine/ Chloramine	0	2189	TT = No more than 4 hours with a sample below 0.2 MG/L	No	Water additive used to control microbes
Chlorine Dioxide	0	365	MRDL = 800 ppb	No	Water additive used to control microbes

Disinfectants sampled at the entry point to the distribution system.

Contaminant Name	Year	Average	Range	Sample Size	Units of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2016	5.5	5.5–5.5	1	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2014	0.54	0.54–0.54	1	pCi/L	5	0	No	Erosion of natural deposits

Radionuclides sampled at the entry point to the distribution system.

Contaminant Name	2017 Average	Range	Sample Size	Units of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	0.02	0.02–0.02	1	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride	0.7	0.7–0.7	1	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

Inorganic Contaminants sampled at the entry point to the distribution system.

UCMR 3 TESTING RESULTS 2013

Unregulated Contaminates

	Average	Range	Samples	Measure	MCL	Violation	Typical Sources
Chlorate	61	46-67	8	ppb	N/A	No	By - product of drinking water disinfection
Chromium-6	12.39	5.9 - 15.2	8	ppb	N/A	No	Chromium is found and occurs naturally in rocks, plants, soil volcanic dust, and animals
Strontium	23.37	15.2 - 34.9	8	ppb	N/A	No	Strontium commonly occurs in nature
Vanadium	0.125	0 - .5	8	ppb	N/A	No	Vanadium a rare, soft, ductile gray- white element found combined in certain minerals and used mainly to produce certain alloys

The EPA has implemented the Unregulated Contaminant Monitoring Rule (UCMR) to collect data for contaminants that are suspected to be present in drinking water and do not have health-based standards set under the Safe Drinking Water Act. EPA uses the results of UCMR monitoring to learn about the occurrence of unregulated contaminants in drinking water and to decide whether or not these contaminants will be regulated in the future. We performed monitoring and reported the analytical results of the monitoring to EPA in accordance with its Third Unregulated Contaminant Monitoring Rule (UCMR3). Once EPA reviews the submitted results, the results are made available in the EPA's National Contaminant Occurrence Database (NCOD). (<http://www.epa.gov/dwucmr/national-contaminant-occurrence-database-ncod>) Consumers can review UCMR results by accessing the NCOD. Contaminants that were detected during our UCMR3 sampling and the corresponding analytical results are provided. ***More information about the contaminants that were included in UCMR3 monitoring can be found at: <http://www.drinktap.org/water-info/whats-in-my-water/unregulated-contaminant-monitoring-rule.aspx>. Learn more about the EPA UCMR at: <http://www.epa.gov/dwucmr/learn-about-unregulated-contaminant-monitoring-rule> or contact the Safe Drinking Water Hotline at (800) 426-4791 or <http://water.epa.gov/drink/contact.cfm>.

Cryptosporidium and Raw Source Water E. coli

	<u>Year</u>	<u>Number of Positives</u>	<u>Sample Size</u>	<u>Typical Sources</u>
E. Coli	2017	6	12	Naturally present in the environment

Secondary Contaminates

	<u>Year</u>	<u>Average</u>	<u>Range</u>	<u>Samples</u>	<u>Unit of Measure</u>
Sodium	2017	14	14–14	1	ppm

****Secondary standards are non-enforceable guidelines for contaminants that may cause cosmetic effects (such as skin, or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water.**

Watershed Protection. The City of Fort Morgan is actively involved with two organizations, The Colorado Big Thompson Watershed Forum and The Northern Colorado Water Conservancy District. (NCWCD). Both organizations monitor the raw water quality as it travels through the Colorado Big Thompson Project. The results of this monitoring can be viewed at <http://www.btwatershed.org> or <http://www.ncwcd.org>

Source Water Assessment and Protection (SWAP) The Colorado Department of Public Health and Environment has provided us with a Source Water Assessment report for our water supply. You may obtain a copy of the report by visiting <http://www.compliance.com/ccr>. The report is located under "Source Water Assessment Reports". and then "Assessment Report by County". Select Morgan County and find 144005: Fort Morgan City of or by contacting Eleazar O'canas at 970-483-7244.

The Source Water Assessment Report, provides a screening level evaluation of potential contamination that **could** occur. It **does not** mean that the contamination **has or will occur**. We can use this information to evaluate the need to improve our current water treatment capabilities and prepare for future contamination threats. This report can help us ensure that quality finished water is delivered to your homes. In addition, the source water assessment results provide a starting point for developing a source water protection plan.

Potential sources of contamination in our source water come from: EPA Hazardous Waste Generators, EPA Chemical Inventory / Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Above ground, Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing / Abandoned Mine Sites, Concentrated Animal Feeding Operations, Other Facilities, Commercial / Industrial / Transportation, Low Intensity Residential, Urban Recreational Grasses, Row Crops, Fallow, Small Grains, Pasture / Hay, Forests, Septic Systems, Oil / Gas Wells, and Road Miles.

Please contact us to learn more about what you can do to help protect your drinking water sources, any questions about the Drinking Water Consumer Confidence Report, to learn more about our system, or to attend scheduled public meetings. We want you, our valued customer, to be informed about the services we provide and the quality of the water we deliver to you every day.

In order to ensure that tap water is safe to drink. The Colorado Department of Public Health and Environment prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Lead in drinking water If present, elevated levels of lead can cause serious health problems (especially for pregnant women and young children). It is possible that lead levels at your home may be higher than other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated levels in your home's water, you may wish to have your water tested. 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 tap water for drinking or cooking. Additional information is available from the **Safe Drinking Water Hot Line 800 - 426 - 4791** or by visiting <http://www.epa.gov/safewater/lead>.

General Information about Drinking Water

Some people may be more vulnerable to contaminants in drinking water than is the general population.

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. 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 and some elderly and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. For more information about contaminants and potential health effects, or to receive a copy of the U.S. Environmental Protection Agency (EPA) and the U.S. Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and microbiological contaminants, call the EPA **Safe Drinking Water Hot Line at 800 - 426 - 4791** or by visiting <http://water.epa.gov/drink/contaminants>. **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 radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contamination that may be present in source water include:

Microbiological 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, storm water runoff and residential uses.

Organic chemical contaminants, including synthetic and volatile organics, 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.

Cryptosporidium, is a microbial pathogen found in surface water throughout the United States. Although filtration removes cryptosporidium, the most commonly used filtration method cannot guarantee 100 percent removal. Ingestion of cryptosporidium may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. Cryptosporidium must be ingested to cause disease, and it may be spread through means other than drinking water.

Violations, Significant Deficiencies or Formal Enforcement Actions: None.