

FORT RILEY

Consumer Confidence Report – 2018

Covering Calendar Year – 2017



This annual Consumer Confidence Report brochure is a snapshot of the quality of the water that we provided last year. Included are the details about where your water comes from, what it contains, and how it compares to Environmental Protection Agency (EPA) and state standards. We are committed to providing you with information because informed customers are our best allies. If you would like more information, please contact Public Works, Water Quality Protection Regulations Manager, at 785-239-2630.

Your water comes from 8 Ground Water Wells. In order to ensure that tap water is safe to drink, EPA prescribes regulation which limits the amount of certain contaminants in water provided by public water systems. We treat our water according to EPA's regulations. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

Our water system is required to test a minimum of 40 samples per month in accordance with the Total Coliform Rule (TCR) for microbiological contaminants. Coliform bacteria are usually harmless, but their presence in water can be an indication of disease-causing bacteria. When coliform bacteria are found, special follow-up tests are done to determine if harmful bacteria are present in the water supply. If this limit is exceeded, the water supplier must notify the public.

The bottom line is that the water that is provided to you is safe.

During the 2017 calendar year, we had no violation(s) of drinking water regulations.

Where can I find more information?

The EPA's ground water and drinking water website at <http://www.epa.gov/safewater/faq/faq.html>

Kansas Department of Health and Environment: <http://www.kdheks.gov/pws/index.html>

Water Quality Data: Testing Results for: FORT RILEY

Fort Riley meets or exceeds all federal and Kansas requirements for testing your drinking water. We are required to regularly test it for more than 80 potential contaminants. Some we test for multiple times throughout each year; some we test for once each year; others we test for less frequently because the concentration of those contaminants are not expected to vary significantly from year to year. The data tables that follow list all of the drinking water contaminants detected during the most recent test for each of them. The tables do not present data for those contaminants that we tested for but did not detect during our most recent test. Unless noted, the data presented in the tables are from testing done January 1 - December 31, 2017, and all of the data presented are from the most recent test for each contaminant.

Microbiological	Result	MCL	MCLG	Typical Source
COLIFORM (TCR)	In the month of October, 4.35% of samples returned as positive (2 out of 46).	No more than 5% positive monthly samples;	0	Naturally present in the environment

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
ATRAZINE	9/12/2017	0.12	0.12	ppb	3	3	Runoff from herbicide used on row crops
BARIUM	6/1/2017	0.048	0.048	ppm	2	2	Discharge from metal refineries
FLUORIDE	10/2/2017	0.83	0.39 - 0.83	ppm	4	4	Natural deposits; Water additive which promotes strong teeth.
NITRATE	6/1/2017	0.33	0.3 - 0.33	ppm	10	10	Runoff from fertilizer use
SELENIUM	6/1/2017	1.9	1.9	ppb	50	50	Erosion of natural deposits

Disinfection Byproducts	Monitoring Period	Highest RAA	Range (low/high)	Unit	MCL	MCLG	Typical Source
TOTAL HALOACETIC ACIDS (HAA5)	2017	23	9.5 - 27	ppb	60	0	By-product of drinking water disinfection
TTHM	2017	79	31 - 88	ppb	80	0	By-product of drinking water chlorination

Lead and Copper	Monitoring Period	90 th Percentile	Range (low/high)	Unit	AL	Sites Over AL	Typical Source
COPPER, FREE	2015 - 2017	0.018	0.001 - 0.15	ppm	1.3	0	Corrosion of household plumbing
LEAD	2015 - 2017	0.0	Non-detect - 2.2	ppb	15	0	Corrosion of household plumbing

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. Your water system is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. 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>.

Radiological Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)	4/7/2015	0.3	0.3	PCI/L	5	0	Erosion of natural deposits

Secondary Contaminants-Non Health Based Contaminants-No Federal Maximum Contaminant Level (MCL) Established.	Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL	6/1/2017	60	*	MG/L	300
CALCIUM	6/1/2017	33	*	MG/L	200
CHLORIDE	6/1/2017	51	*	MG/L	250
CONDUCTIVITY @ 25 C UMHOS/CM	6/1/2017	490	*	UMHO/CM	1500
CORROSIVITY	6/1/2017	0.021	*	LANG	0
HARDNESS, TOTAL (AS CaCO3)	6/1/2017	130	*	MG/L	400
MAGNESIUM	6/1/2017	11	*	MG/L	150
pH	6/1/2017	8.3	*	pH	8.5
PHOSPHORUS, TOTAL	6/1/2017	0.088	*	MG/L	5
POTASSIUM	6/1/2017	9.1	*	MG/L	100
SILICA	6/1/2017	15	*	MG/L	50
SODIUM	6/1/2017	38	*	MG/L	100
SULFATE	6/1/2017	84	*	MG/L	250
TDS	6/1/2017	280	*	MG/L	500

Please Note: Because of sampling schedules, results may be older than 1 year (see FAQs for more information).

* Not applicable – only a single sample was collected and tested.

Additional Required Health Effects Language:

Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

Terms & Abbreviations

Maximum Contaminant Level Goal (MCLG): the “Goal” is the level of a contaminant in drinking water below which there is no known or expected risk to human health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): 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.

Secondary Maximum Contaminant Level (SMCL): recommended level for a contaminant that is not regulated and has no MCL.

Action Level (AL): the concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

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

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.

Non-Detects (ND): lab analysis indicates that the contaminant is not present.

Parts per Million (ppm): or milligrams per liter (mg/L)

Parts per Billion (ppb): or micrograms per liter (µg/L)

Potential of Hydrogen (pH): is a scale of acidity from 0 to 14. It tells how acidic or alkaline a substance is. More acidic solutions have lower pH. More alkaline solutions have higher pH. Substances that aren't acidic or alkaline (that is, neutral solutions) usually have a pH of 7.

Picocuries per Liter (pCi/L): a measure of the radioactivity in water.

Millirems per Year (mrem/yr): measure of radiation absorbed by the body.

Monitoring Period Average (MPA): an average of sample results obtained during a defined time frame, common examples of monitoring periods are monthly, quarterly and yearly.

Nephelometric Turbidity Unit (NTU): a measure of the clarity of water. Turbidity in excess of 5 NTU is just noticeable to the average person. Turbidity is not regulated for groundwater systems.

Running Annual Average (RAA): an average of sample results obtained over the most current 12 months and used to determine compliance with MCLs.

Total dissolved solids (TDS): comprise inorganic salts (principally calcium, magnesium, potassium, sodium, bicarbonates, chlorides, and sulfates) and some small amounts of organic matter that are dissolved in water.

Trihalomethanes (THM): are a group of four chemicals that are formed along with other disinfection by products when chlorine or other disinfectants used to control microbial contaminants in drinking water react with naturally occurring organic and inorganic matter in water.

Micromhos per centimeter (umho/cm): is a unit of measurement for conductivity. The prefix “micro” means that it is measured in millionths of a mho.

90th Percentile: is calculation used to determine compliance with lead and copper rule. For an explanation of how this calculation is done please visit the following link <https://dnr.wi.gov/topic/DrinkingWater/documents/90thpercentile.pdf>

Langelier Index (LANG): is an approximate indicator of the degree of saturation of calcium carbonate in water. It is calculated using the pH, alkalinity, calcium concentration, total dissolved solids, and water temperature of a water sample collected at the tap.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those 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/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).

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 water and bottled water) included 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 sources water before we treat it include:

Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, 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 storm water run-off, agriculture, and residential users.

Radioactive contaminants, which can be naturally occurring or the result of mining activity.

Organic contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and also come from gas stations, urban storm water run-off, and septic systems.

[Frequently Asked Questions About Fort Riley Drinking Water](#)

- Why does my water smell like bleach?

Sodium Hypochlorite is used as a disinfectant in your drinking water to kill or prevent the growth of bacteria. Sodium Hypochlorite is the active ingredient in bleach. The faucets are designed to aerate or strip out chlorine from the bleach in the water and that is why you smell it.

- Why does my water come out looking orange/rusty colored sometimes?

Dissolved iron and manganese naturally occur in the water aquifer in this area. Those minerals tend to drop out of solution during periods of low use (such as over the weekend or overnight) to cause such a color problem. This aesthetic discoloration is not unhealthy or unsafe. Flushing or turning the tap on to run until the water is clear will help to remediate the discoloration.

If brief flushing doesn't result in clear water or the problem is persistent or not associated with periods of low use, please contact your maintenance provider:

- Corvias housing residents should contact their Neighborhood Office
- Administrative building occupants should call in a DPW service order to 239-0900
- Barracks residents should call their FSBP office

- Is the water treated or cleaned?

Yes, your water is treated at the Fort Riley Drinking Water Treatment Plant using sodium hypochlorite.

- Why does my water taste funny/bad?

Drinking water may contain small/safe amounts of dissolved minerals that may influence its taste.

- My skin itches after showering. Does the shower water cause this itching?

No. Commonly called "Winter Itch", people's dry skin is a result of low humidity during winter months in Kansas. Hot water removes the skin's protective natural oils, causing irritation.

- What about home water treatment units?

Consumers who choose to purchase a home water treatment unit should carefully read its product information to understand what they are buying, whether it is a better taste or a certain method of treatment. Be certain to follow the manufacturer's instructions for operation and maintenance, especially changing the filter on a regular basis to prevent bacterial growth. Fort Riley neither endorses nor recommends specific home water treatment units. No single unit takes out every kind of drinking water contaminant; you must decide which type best meets your needs.

- Why are some sampling results more than one year old? Sampling schedules are defined by Federal and State regulations and/or determined by the Kansas Department of Health and Environment. Sampling frequencies can vary from as often as monthly to as infrequently as once every nine years, depending on the chemical nature and potential health effects of the contaminant.

The following link is a for the Kansas Department of Health and Environment, the State agency that is responsible for ensuring we comply with EPA drinking water regulations, and provides access to historical water testing and inspection information. http://165.201.142.59:8080/DWW/DWW_login.jsp