

Information about your Water

This 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 to observe the decision-making process that affect drinking water quality, please call Shauna Johnson at 785-890-4500.

The sources of drinking water (both tap water and bottled water) including rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land and 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.

Source of your Water

The City of Goodland has authority for the placement of eleven (11) groundwater wells. In 2022, nine (9) wells produced water. The source water assessment has been completed by the State, which helps the City identify possible sources of well contamination. The replacement of Well 4 is still ongoing as the city is trying to locate a suitable site. The well depths for Wells 3 through 8, 10 and 12 average 290-300 feet in depth. Wells 9 and 11 average 350 feet in depth. All of the wells receive their water from the Ogallala Aquifer.

Contaminants that may be present in source water before we treat it 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 natural occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oil and gas productions, mining or farming.

Pesticides and herbicides, which may come from a variety of sources such as storm water run-off agriculture, and residential uses.

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 and can also come from gas stations, urban storm water run-off and septic systems.

Water Conservation Tips

- △ Wash your fruits and vegetables in a pan instead of running water.
- △ Upgrade older toilets with water efficient models.
- △ Share water tips with friends.
- △ When cleaning fish tanks, give the nutrient-rich water to your plants.
- △ Drop your tissue in the trash instead of flushing it.
- △ Wash your pets outdoors in an area of your lawn that needs water.
- △ Apply water only as fast as the soil can absorb it.
- △ Avoid watering between 12:00 p.m. to 5:00 p.m.
- △ **When you save water, you save money on your utility bills too.**

Message from the EPA



Drinking Water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants.



Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as cancer patients, organ transplants, HIV/AIDS or other immune system disorders, some elderly and infants are at greater risk. If concerned, you should seek advice about drinking water from a health care provider.



EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants and potential health effects are available by calling the Safe Drinking Water Hotline 800-426-4791.

General Information

Nitrate in drinking water at levels above 10 ppm is a health risk for infants of less than six months of age. High nitrate levels in drinking water can cause blue baby syndrome. Nitrate levels may rise quickly for short periods of time because of rainfall or agricultural activity. If you are caring for an infant, you should ask for advice from your health care provider.

In order to ensure that tap water is safe to drink, EPA prescribes regulations 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 five samples per month in accordance with the Revised Total Coliform Rule 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 tables on the following page list all of the drinking water contaminants. The presence of these contaminants does not necessarily indicate the water poses a health risk. Unless noted, the data presented in this table is from the testing done January 1-December 31, 2022. The State 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. Some of the data, though representative of the water quality, is more than one year old.

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



Consumer Confidence Report 2023

Covering Calendar Year 2022



Information about Water System

➤ Water is a precious commodity with which we need to take great measures to be resourceful and conserve what is provided to each of us. Please take time to look over the annual water quality report for **2022**. Included are details about where the water comes from, how it is treated, what it contains and how it compares to standards set forth by regulatory agencies. It contains vital information about your drinking water.

➤ This report is published in part because of amendments to the Safe Drinking Water Act, which requires all public water systems to issue such reports on an annual basis.

➤ Each day, City of Goodland employees work hard to make sure that the water delivered to our customers meets or exceeds all regulatory requirements. To maintain high water quality, the staff collects samples in accordance with all State and Federal requirements.

➤ The Water/Sewer Superintendent is Neal Thornburg. Other staff members include Josh Colby, Donald Henderson, Brandon Kenny and Leslie Killian.

➤ City Commission meetings are on the 1st and 3rd Mondays of each month at 5:00 p.m. MST at 204 W 11th St.

Terms and Abbreviations

↑**AL** – *Action Level*: The concentration of a contaminant that, if exceeded, triggers treatment or other requirements.

**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>

↓**pCi/L** – *Picocuries per Liter* – a measure of the radioactivity in water

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

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

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.

ND – *Non-Detects*: lab analysis indicates that the contaminant is not present.

mrem/yr – *Millirems per Year*: measure of radiation absorbed by the body.

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

NTU – *Nephelometric Turbidity Unit*: 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.

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

LRAA – *Locational Running Annual Average* – Average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.

Lead and Cooper Information

During the 2022 calendar year, we had the below noted violation(s) of drinking water regulations.

Compliance Period	Analyte	Comments
12/30/2021-05/12/2022	Lead & Copper Rule	Lead Consumer Notice

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** Infants and children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested. Additional information is available from the Safe Drinking Water Hotline (800-426-4791) or at <http://www.epa.gov/safewater/lead>

Regulated Contaminants	Collection Date	Highest Value	Range (low/high)	Unit	MCL	MCLG	Typical Source				
ARSENIC	02/08/2021	2.9	2.9	ppb	10	0	Erosion of natural deposits				
BARIUM	02/08/2021	0.1	0.1	ppm	2	2	Discharge from metal refineries				
CHROMINUM	02/08/2021	2.1	2.1	ppb	100	100	Discharge from steel and pulp mills				
FLUORIDE	02/08/2021	1.4	1.4	ppm	4	4	Natural deposits; water additive which promotes strong teeth.				
NITRATE	03/14/2022	7.1	7.1	ppm	10	10	Runoff from fertilizer use				
SELENIUM	02/08/2021	6.8	6.8	ppb	50	50	Erosion of natural deposits				
TETRACHLOROETHYLENE	06/06/2022	.079	0.079	ppb	5	0	Discharge from factories and dry cleaners.				
Secondary Contaminants-Non-Health Based Contaminants-No Federal Maximum Contaminant Level(MCL) Established.							Collection Date	Highest Value	Range (low/high)	Unit	SMCL
ALKALINITY, TOTAL							02/08/2021	140	140	MG/L	300
CALCIUM							02/08/2021	49	49	MG/L	200
CHLORIDE							02/08/2021	64	64	MG/L	250
CONDUCTIVITY@25 C UMHOS/CM							02/08/2021	590	590	UMHO/CM	1500
CORROSIVITY							02/12/2018	0.05	0.05	LANG	0
HARDNESS, TOTAL (AS CAC03)							02/08/2021	200	200	MG/L	400
MAGNESIUM							02/08/2021	18	18	MG/L	150
PH							02/08/2021	7.6	7.6	PH	8.5
POTASSIUM							02/08/2021	5.1	5.1	MG/L	100
SILICA							02/0/2021	58	58	MG/L	50
SODIUM							02/08/2021	41	41	MG/L	100
SULFATE							02/08/2021	29	29	MG/L	250
TDS							02/08/2021	380	380	MG/L	500
ZINC							02/08/2021	0.021	0.021	MG/L	5
Disinfection Byproducts		Monitoring Period		Highest RAA		Range (low/high)		Unit	MCL	MCLG	Typical Source
TOTAL HALOCETIC ACIDS (HAA5)		2021		6		5.7		ppb	60	0	By-product of drinking H2O disinfection
TTHM		2021		24		24		ppb	80	0	By-product of drinking water chloration
Chlorine/Chloramines Maxium Disinfection Level					MPA	MPA Units		RAA	RAA Units		
2022-2022					1.5400	MG/L		1.5	MG/L		
Radiological Contaminants		Collection Date		Highest Value		Range (low/high)		Unit	MCL	MCLG	Typical Source
COMBINED RADIUM (-226 & -228)		05/13/2019		0.6		0.6		PCI/L	5	0	Erosion of natural deposits
Lead and Copper	Monitoring Period		Highest RAA		Range (low/high)		Unit	AL	Sites Over AL		Typical Source
COPPER, FREE	2019-2021		0.25		0.0074-0.43		Ppm	1.3	0		Corrosion of household plumbing
LEAD	2019-2021		3.2		0-41		ppb	15	1		Corrosion of household plumbing