2020 Annual Drinking Water Quality Report

STRATHMORE PUBLIC UTILITY DISTRICT

We test the drinking water quality for many constituents as required by State and Federal Regulations.
This report shows the results of our monitoring for the period of January 1 – December 31, 2020 and may include earlier monitoring data.

Este informe contiene información muy importante sobre su agua de beber.
Tradúzcalo ó hable con alguien que lo entienda bien.

We are pleased to provide you with this year's Annual Water Quality Report. We want to keep you informed about the water and services we have delivered to you over the past year. Our goal is and always has been, to provide you with a safe and dependable supply of drinking water. Our water source comes from surface water via the Friant Kern Canal and one groundwater well, Well No. 2. Treatment is by conventional filtration using dual media gravity filters followed by chlorination. Groundwater that exceeds the nitrate MCL is mixed with the surface water prior to treatment, with the blended supply having a nitrate level well below the allowed maximum.

A source water assessment was conducted for the District's water supply well and surface water source in March 2003. The water sources are considered most vulnerable to the following activities associated with contaminants detected in the water supply: fertilizer, pesticide and/or herbicide application. The water sources are considered most vulnerable to the following activities not associated with any detected contaminants: automobile – gas stations; septic systems – high density; and wastewater treatment plants and disposal facilities. A sanitary survey report for the Friant-Kern Canal water supply has also been completed. An update to this report was completed in 2019. A copy of the complete assessment and sanitary survey report may be viewed at: Strathmore Public Utility District, 19626 Orange Belt Drive, Strathmore, CA 93267. You may request a summary of the assessment or sanitary survey report be sent to you by contacting the District, at 559/568-1613 or 559/568-0240 (fax).

If you have any questions about this report or concerning your water utility, please contact the General Manager, Adrian Ordonez, at 559/568-1613. We want our customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled meetings held on the second Thursday of each month at 6:30 p.m. at the District office, 19626 Orange Belt Drive (Board Room South Entry), Strathmore, CA 93267.

The following are definitions of some of the TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

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 are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

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.

Maximum Residual Disinfectant Level Goal (MRDLG): 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.

Primary Drinking Water Standards (PDWS): MCLs, MRDLs and treatment techniques (TT) for contaminants that affect health along with their monitoring and reporting requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

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

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

Variances and Exemptions: State Board permission to exceed an MCL or not comply with a treatment technique under certain conditions.

Level 1 Assessment: A Level 1 assessment is 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.

Level 2 Assessment: A Level 2 assessment is 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.

N/A: Not applicable
ND: not detectable at testing limit
ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (µg/L)
ppt: parts per trillion or nanograms per liter (ng/L)
ppq: parts per quadrillion or picogram per liter (pg/L)
pCi/L: picocuries per liter (a measure of radiation)

In general, sources of drinking water (both tap water and bottled water) may 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.

Constituents that may be present in source water to contamination levels include:

- 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, that 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 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 that are byproducts of industrial processes and petroleum production and can also come from gas stations, urban stormwater runoff, agricultural application and septic systems.
- Radioactive contaminants that can be naturally occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the U. S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board – Division of Drinking Water (DDW) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. DDW regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

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. Strathmore Public Utility District 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.

The tables below and on the following pages list all the drinking water constituents that were detected during the most recent samplings for the constituent. The presence of these constituents in the water does not necessarily indicate that the water poses a health risk. The DDW requires us to monitor for certain constituents less than once per year because the concentrations of these constituents are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, are therefore more than one year old.

SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique	Turbidity Performance Standards (TPS)	Lowest monthly percentage of samples that met TPS	Number of Months in Violation	Highest single turbidity measurement during the year
Conventional Filtration Treatment with Chlorination	Turbidity of the filtered water must: Be less than or equal to 0.3 NTU in 95% of measurements in a month.	100%	0	0.192

Turbidity (measured in NTU) is a measurement of the cloudiness of water and is an indicator of filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest No. of Detections	No. of months in violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria (State Total Coliform Rule)	(In a month) 0	0	1 positive monthly sample (a)	0	Naturally present in the environment
Fecal Coliform or E. Coli (State Total Coliform Rule)	(In the year) 0	0	A routine sample and a repeat sample are total coliform positive, and one of these is also fecal coliform or E.coli positive		Human and animal fecal waste
E. coli (Federal Revised Total Coliform Rule)	(In the year) 0	0	(b)	0	Human and animal fecal waste

(a) Two or more positive monthly samples is a violation of the MCL

(b) Routine and repeat samples are total coliform-positive and either is E.coli positive or system fails to take repeat samples following E. coli-positive routine sample or system fails to analyze total coliform-positive repeat sample for E. coli.

Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other, potentially harmful, bacteria may be present. The District collects 4 to 5 samples each month.

TEST RESULTS (A)

Lead and Copper Rule	No. of samples collected	MCLG	Action Level	90th percentile level detected	No. Sites Exceeding Action Level	Number of Schools Requesting Lead Sampling	Typical Source of Contamination
Lead (ppb) 2018	10	2	15	ND	1 (B)	5 (Completed)	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm) 2018	10	0.3	1.3	0.24	0	N/A	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

SAMPLING RESULTS FOR SODIUM AND HARDNESS						
Chemical or Constituent (and reporting units)	**MCL**	**PHG [MCLG]**	**Sample Date**	**Weighted Average Level Detected (C)**	**Range**	**Typical Source of Contamination**
Hardness (ppm)	None	None	2020	50	8.7 to 170	Generally found in ground and surface water
Sodium (ppm)	None	None	2020	18	2.5 to 61	Generally found in ground and surface water

DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD						
Chemical or Constituent (and reporting units)	**MCL**	**PHG [MCLG]**	**Sample Date**	**Weighted Average Level Detected(C)**	**Range (D)**	**Typical Source of Contamination**
Barium (ppm)	1	2	2020	0.11	ND to 0.12	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2	1	2020	0.05	ND to 0.16	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate as N (ppm) (Blended)	10	10	2020	3.74	0.49 to 9.30 (E)	Runoff and leaching from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

RADIOACTIVE CONTAMINANTS (D)						
Gross Alpha Activity (pCi/L)	15	N/A	2014 & 2020	< 3	ND to 2.23	Erosion of natural deposits
Radium 228 (pCi/L)	5 (Combined Radium)	0.019	2006 & 2011	0.87	0.52 to 1	Erosion of natural deposits

DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD					
Chemical or Constituent (and reporting units)	**MCL**	**Sample Date**	**Weighted Average Level Detected (C)**	**Range (D)**	**Typical Source of Contamination**
Chloride (ppm)	500	2020	10	2 to 34	Runoff/leaching from natural deposits; seawater influence
Color (Units)	15	2020	5	ND TO 5	Naturally-occurring organic materials
Iron (ppb)	300	2020	122	ND to 130	Leaching from natural deposits; industrial waste
Specific Conductance (µS/cm)	1600	2020	177	29 to 610	Substances that form ions when in water; seawater influence
Sulfate (ppm)	500	2020	9.1	ND to 34	Runoff/leaching from natural deposits; industrial wastes
Total Dissolved Solids (TDS) (ppm)	1000	2020	112	26 to 360	Runoff/leaching from natural deposits
Turbidity (Units)	5	2020	0.71	0.13 to 0.91	Soil runoff

DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS							
Chemical or Constituent (and reporting units)	**MCL [MRDL]**	**PHG**	**MCLG [MRDLG]**	**Sample Date**	**Running Annual Average**	**Range**	**Major Sources in Drinking Water**
TTHM [Total Trihalomethanes] (ppb)	80	N/A	N/A	2020	49.1	32.2 to 62.6(F)	Byproduct of drinking water chlorination
HAA5 [Haloacetic Acids] (ppb)	60	N/A	N/A	2020	15.1	7.4 to 22.6 (G)	Byproduct of drinking water disinfection
Chlorine as Cl_2 (ppm)	[4.0]	N/A	[4]	2020	0.69	0.24 to 1.63	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose or stomach discomfort.

Control of DBP Precursors (TOC)	MCL	MCLG	Range	Major Sources in Drinking Water
Source Water	TT	N/A	0.79 to 1.7	Various natural and manmade sources
Treated Water	TT	N/A	0.75 to 1.7	Various natural and manmade sources

DETECTION OF SYNTHETIC ORGANIC CONTAMINANTS INCLUDING PESTICIDES & HERBICIDES						
Constituent	**MCL**	**PHG [MCLG]**	**Sample Date**	**Average Level Detected**	**Range**	**Typical Source of Contamination**
Trichloropropane (H) (1,2,3-TCP) (ppt)	5	0.7	2019/2020	ND	N/A	Discharge from industrial and agricultural chemical factories; leaching from hazardous waste sites; used as cleaning and maintenance solvent, paint and varnish remover, and cleaning and degreasing agent; byproduct during the production of other compounds and pesticides.

A. Results reported due to regulatory requirement or detection of a constituent.

B. **ABOUT 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. Strathmore Public Utility District 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/lead.

C. The weighted average reflects the quantity of water provided from each source of supply, be it groundwater (wells) and/or surface water along with the representative concentration for a particular constituent.

D. Results reported include amounts that are less than the State Water Resources Control Board Division of Drinking Water required detection level for this constituent.

E. ABOUT NITRATE: Nitrate in drinking water at levels above 10 mg/L (as N) is a health risk for infants of less than six months of age. Such nitrate levels in drinking water can interfere with the capacity of the infant's blood to carry oxygen, resulting in a serious illness; symptoms include shortness of breath and blueness of the skin. Nitrate levels as N that are above 10 mg/L may also affect the ability of the blood to carry oxygen in other individuals, such as pregnant women and those with certain specific enzyme deficiencies. If you are caring for an infant, or you are pregnant, you should ask advice from your health care provider.

F. ABOUT TTHM: Some people who drink water containing trihalomethanes (TTHM) in excess of the MCL over many years may experience liver, kidney, or central nervous system problems, and may have an increased risk of getting cancer.

G. ABOUT HAA5: Some people who drink water containing haloacetic acids (HAA5) in excess of the MCL over many years may have an increased risk of getting cancer.

H. ABOUT 1,2,3-TCP: Some people who drink water containing 1,2,3-trichloropropane (1,2,3-TCP) in excess of the MCL over many years may have an increased risk of getting cancer. 1,2,3-trichloropropane (1,2,3-TCP) had a notification level (NL) of 5 ppt until December 14, 2017, when the MCL of 5 ppt became effective. We are required to monitor your drinking water for specific contaminants on a regular basis. Results of regular monitoring are an indicator of whether or not your drinking water meets health standards. During the calendar year 2018, we did not monitor for 1,2,3-TCP from the Friant-Kern Canal during the 2nd calendar quarter and therefore, cannot be sure of the quality of your drinking water during that time.

ADDITIONAL GENERAL INFORMATION ON DRINKING WATER

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some constituents. The presence of constituents does not necessarily indicate that the water poses a health risk. More information about constituents, contaminant levels and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1/800/426-4791 or their website http://www.epa.gov/safewater/hfacts.html.

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 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. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbiological contaminants are available from the Safe Drinking Water Hotline 1/800/426-4791.

Strathmore Public Utility District
P. O. BOX 425 ~ 19626 Orange Belt Drive
Strathmore, CA 93267