Water Quality Report for Calendar Year 2018

Security Water District

PWSID # CO0121775

Esta es informacion importante. Si no la pueden leer, necesitan que alguien se la traduzca.

SECURITY WATER DISTRICT is pleased to present to you this year's Water Quality Report. This report is designed to inform you about the quality water and services we deliver to you every day. Our constant goal is to provide you with a safe and dependable supply of drinking water. Security's water comes from the Fountain Valley Authority (FVA) and the Southern Delivery System (SDS), and we also purchase water from Colorado Springs Utilities (CSU) during the summer months. Of our total water supply in 2018, 47 percent was treated surface water from the FVA, 49 percent was treated surface water from SDS, and 4 percent came from CSU. FVA water comes from a system of pipes and tunnels that collect water in the Hunter-Fryingpan wilderness area near Aspen, CO. Water collected from the system is diverted to the Arkansas River, near Buena Vista, and then flows approximately 150 miles downstream to Pueblo Reservoir. From Pueblo Reservoir, the water travels through a pipeline to the FVA water treatment plant, and then through a pipeline to our storage tanks. SDS is also water from Pueblo Reservoir, transported to Security Water District though the Southern Delivery System. CSU water comes from a blend of sources including surface water and purchased water, all of which is treated in one of CSU's water treatment plants. **Since September 10th 2016, none of the Security Water District's wells have been used in the distribution system.**

GENERAL INFORMATION ABOUT DRINKING WATER

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 t**h**e water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791) or by visiting http://water.epa.gov/drink/contaminants

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 of 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 Hotline at (1-800-426-4791).

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 that 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 that may come from a variety of sources, such as agriculture, urban storm water runoff, and residential uses.
Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and also may come from gas stations, urban storm water runoff, and septic systems.
Radioactive contaminants, that 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, 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 lead in your 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 water for drinking or cooking. Additional information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline (1-800-426-4791) or at http://www.epa.gov/safewater/lead

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. For general information or to obtain a copy of the report please visit https://www.colorado.gov/cdphe/ccr. The report is located under "Guidance: Source Water Assessment Reports". Search the table using 121775, SECURITY WSD, or by contacting RICHARD DAVIS at 719-392-3475. 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 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 area which could potentially impact all our water sources, are EPA Super Fund Sites, EPA Abandoned Contaminated Sites, EPA Hazardous Waste Generators, EPA Chemical Inventory/Storage Sites, EPA Toxic Release Inventory Sites, Permitted Wastewater Discharge Sites, Aboveground/Underground and Leaking Storage Tank Sites, Solid Waste Sites, Existing/Abandoned Mines sites, Other Facilities, Commercial/Industrial Transportation, High and Low Intensity Residential, Urban Recreational Grasses, Quarries/Strip Mines/Gravel Pits, Agricultural Land, Forest, Septic Systems, Oil/Gas Wells, and Road miles. We want our valued customers to be informed about their water utility. If you want to learn more, please attend any of our regularly scheduled board meetings located at 231 Security Blvd. in Security, which are normally held on the third Wednesday of each month at 5: 30 p.m. If you have any questions concerning this report or regarding your water utility, please contact Richard Davis or James L. Jones at Security Water District's office (719-392-3475).

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

TABLE OF DETECTED CONTAMINANTS

Security Water District 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, 2018 unless otherwise noted**.** The State of Colorado requires us to monitor for certain contaminants less than once per year because the concentrations of contaminants are not expected to vary significantly from year to year or the system is not considered vulnerable to this type of contamination. Some of our data, though representative, may be more than one year old. The "Range" column in the tables below show a single value for those contaminants that were sampled only once. **Note:** Only detected contaminants sampled within the last 5 years appear in this report. If no tables appear in this section then no contaminants were detected in the last round of monitoring. All Tables include all detections found in the Fryingpan-Arkansas project (Fry-Ark {surface water}) the Southern Delivery System (SDS {surface water}) and Colorado Springs Utilities (CSU {surface water}).

Contaminant Name (collected in distribution system)	Year	Running Annual Average	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL Running Annual Average	MCL Violation?	Typical Sources
TOTAL HALOACETIC ACIDS(HAA5) (SWD)	2018	20.36	12-28	15	ppb	60	No	By-product of drinking water disinfection.
TTHMS (SWD)	2018	41.56	26.9-59-9	15	ppb	80	No	Byproduct of drinking water disinfection.
TOTAL HALOACETIC ACIDS(HAA5) (SDS)(CSU)	2018	33.42	10.2-55.0	NA	ppb	60	No	By-product of drinking water disinfection.
TTHMS (SDS) (CSU)	2018	42.56	20.3-66.5	NA	ppb	80	No	Byproduct of drinking water disinfection.

Contaminant Name (collected at entry points) Inorganic	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
ARSENIC (FVA)	2016	1	1-1	1	ppb	10	0	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
BARIUM (SWD)	2016	0.13	0.13– 0.13	1	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
BARIUM (FVA)	2018	0.06	0.06-0.06	N/A	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
BARIUM) (SDS)(CSU)	2018	0.03	0.01-0.06	N/A	ppm	2	2	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits.
CHROMIUM (SWD)	2016	.29	0 – 1	7	ppb	100	100	No	Discharge from steel and pulp mills; Erosion of natural deposits.
FLUORIDE (SWD)	2016	1	1-1	1	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
FLUORIDE (FVA)	2018	0.53	0.53-0.53	1	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
FLUORIDE) (SDS)(CSU)	2018	0.41	0.16-0.53	N/A	ppm	4	4	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories.
NITRATE (SWD)	2017	6.02	5.3– 7.1	13	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
NITRATE) (SDS)(CSU)	2018	0.15	0-0.44	N/A	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
NITRATE-NITRITE (FVA)	2018	0.44	0.44 – 0.44	N/A	ppm	10	10	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
NICKEL (FVA)	2018	0.53	0.53-0.53	1	ppb	N/A	N/A	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from industries, and steel mills.
NICKEL) (SDS)(CSU)	2018	0.001	0-0.003	N/A	ppm	N/A	N/A	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from industries, and steel mills.
SELENIUM (SWD)	2016	3.2	3.2-3.2	1	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
SELENIUM) (SDS)(CSU)	2018	1.55	0 – 5.4	NA	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
SELENIUM(FVA)	2017	6	6-6	N/A	ppb	50	50	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines.
TETRACHLOROETHYLENE (SWD)	2017	0.43	0 to 1.7	15	ppb	5	0	No	Discharge from factories and dry cleaners.
TRICHLOROETHYLENE (SWD)	2016	0.013	0 – 0.5	37	ppb	5	0	No	Discharge from metal degreasing sites and other factories.
NITRATE	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 advice from your health care provider.								

Contaminant Name (collected at entry points)	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
GROSS ALPHA (SWD)	2016	2.1	2.1-2.1	1	pCi/L	30	0	No	Erosion of natural deposits.
COMBINED RADIUM (-226 & -228) (SWD)	2016	1.03	0-74 to 1.39	4	ppb	5	0	No	Erosion of natural deposits.
COMBINED URANIUM (SWD)	2016	7.6	7.6-7.6	1	pCi/L	30	0	No	Erosion of natural deposits.
COMBINED RADIUM (-226 & -228)) (SDS)(CSU)	2017	.03	0.03-0.3	NA	ppb	5	0	No	Erosion of natural deposits.
COMBINED URANIUM (SDS)(CSU)	2017	3.6	3.6-3.6	4	pCi/L	30	0	No	Erosion of natural deposits.

Secondary Contaminant **

**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.

Contaminant Name (collected at entry points)	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure	Secondary Standard
SODIUM (SWD)	2016	53	53-53	1	ppm	N/A
SODIUM (FVA)	2017	20.6	20.6	1	ppm	N/A
SODIUM (SDS)(CSU)	2018	10.86	4.91-20.70	NA	ppm	N/A
SULFATE (SWD)	2014	73	73-73	1	ppm	250
DIBROMOACETIC ACID (SWD)	2015	1.72	0-4.1	12	ppm	
DICHLOROACETIC ACID (SWD)	2015	13.13	0-30	12	ppm	

Disinfectants Sampled in the Distribution System
TT Requirement: At least 95% of samples per period (month or quarter) must be at least 0.2 ppm OR
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

Contaminant Name	Time Period	Results	Number of Samples Below Level	Sample Size	TT Violation	MRDL	Typical Sources
CHLORINE (SWD) (collected in distribution system)	Dec. 2018	Lowest period percentage of samples meeting TT requirement: 100%	0	20	No	4.0 ppm	Water additive used to control microbes
CHLORINE (FVA)	2018	TT= No more than 4 hours with sample below 0.2 MG/L	0	N/A	No	4.0 ppm	Water additive used to control microbes
CHLORINE (SDS)(CSU)	2018	Lowest period percentage of samples meeting TT requirement: 99.11%	2	N/A	No	MRDL=4ppm TT= @ least 95% of samples per month must be at least 0.2ppm	Water additive used to control microbes
CHLORINE /CHLORAMINE (SDS)(CSU)	2018	TT= No more than 4 hours with sample below 0.2 MG/L	0	N/A	No	4.0 ppm	Water additive used to control microbes

Contaminant Name	SMCL	Average Level Detected(Range)	Units	Sample Dates	Typical Sources
ALUMINUM) (SDS)(CSU)	0.05-0.2	0.037(0-0.068)	ppm	2018	Erosion of natural deposits. Water treatment chemical
CHLORIDE) (SDS)(CSU)	250	5.8(1.4-10.8)	ppm	2018	Erosion of natural deposits.
IRON) (SDS)(CSU)	0.3	0.003(0-0.062)	ppm	2018	Erosion of natural deposits. Leaching from plumbing materials
SULFATE) (SDS)(CSU)	250	40(12.3-125)	ppm	2018	Erosion of natural deposits.
ZINC) (SDS)(CSU)	5000	3.7 (0-3.7)	ppb	2017	Erosion of natural deposits.

Secondary MCL (SMCL) is not an enforceable but intended as guidelines. These contaminants in drinking water may affect aesthetic qualities.

Unregulated Contaminants***

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 below

Contaminant Name (collected at entry points)	Year	Avg. of Individual Samples	Range of Individual Samples (Lowest - Highest)	Number of Samples	Unit of Measure
CHROMIUM (SWD)	2014	0.53	0-0.9	48	µg/L=PPB
COBALT (SWD)	2014	0.03	0-1.1	48	µg/L=PPB
MOLYBDENUM (SWD)	2014	2.13	0-5.8	48	µg/L=PPB
MOLYBDENUM (SDS)	2017	0.42	0-1.4	N/A	µg/L=PPB
STRONTIUM (SWD)	2014	376.45	110-520	48	µg/L=PPB
STRONTIUM(SDS)	2017	79.4	46-110	N/A	µg/L=PPB
VANADIUM (SWD)	2014	0.24	0-0.8	48	µg/L=PPB
VANADIUM (SDS)	2017	0.02	0-0.31	N/A	µg/L=PPB
CHROMIUM, HEXAVALENT (6)	2014	0.46	0.11-0.89	48	µg/L=PPB
CHROMIUM-6 (SDS)	2017	0.001	0-0.041	N/A	µg/L=PPB
CHLORATE (SWD)	2014	80.25	0-1200	48	µg/L=PPB
CHLORATE (SDS)	2014	3.7	0-63	48	µg/L=PPB
1,4-DIOXANE (SWD)	2014	0.07	0-0.17	42	µg/L=PPB
PERFLUOROBUTANESULFONIC ACID (PFBS) (UCMR3) (SWD)	2016	39	0-150	52	ng/L=PPT
PERFLUOROHEPTANOIC ACID (PFHPA) (UCMR3) (SWD)	2016	27	0-60	52	ng/L=PPT
PERFLUOROHEXANESULFONIC ACID (PFHXS) (UCMR3) (SWD)	2016	301	0-640	52	ng/L=PPT
PERFLUOROOCTANE SULFONATE (PFOS) (UCMR3) (SWD)	2016	141	0-560	52	ng/L=PPT
PERFLUOROOCTANOIC ACID (PFOA) (UCMR3) (SWD)	2016	58	0-96	52	ng/L=PPT
MANGANESE(UCMR4) (SWD)	2018	1.383	0-5.76	8	µg/L=PPB
1-BUTANOL(UCMR4) (SWD)	2018	0.548	0-4.380	8	µg/L=PPB
BROMOCHLORACETIC ACID (UCMR4) (SWD)	2018	2.563	1.140-4.6	16	µg/L=PPB
BROMODIHLORACETIC ACID (UCMR4) (SWD)	2018	2.985	0.981-4.050	16	µg/L=PPB
CHLORODIBIBROMOACRTIC ACID (UCMR4) (SWD)	2018	0.646	0.321-0.706	16	µg/L=PPB
DIBROMOACETIC ACID (UCMR4) (SWD)	2018	0.584	0-0.922	16	µg/L=PPB
DICHLOROACETIC ACID (UCMR4) (SWD)	2018	7.515	0.957-15.5	16	µg/L=PPB
TRICHLOROACETIC ACID (UCMR4) (SWD)	2018	10.975	6.51-14.5	16	µg/L=PPB
MANGANESE(UCMR4) (SDS)(CSU)	2018	1.2	0-11	N/A	µg/L=PPB
1-BUTANOL(UCMR4) (SDS)(CSU)	2018	1.07	0-13	N/A	µg/L=PPB
QUINOLINE (UCMR4) (SDS)(CSU)	2018	0.002	0-0.0318	N/A	µg/L=PPB
HALOACETIC ACIDS 5(HAA5)(UCMR4) (SDS)(CSU)	2018	33.9	10.2-55	N/A	µg/L=PPB
BROMINATED HALOACETIC ACIDS 6 (HAABr6) (UCMR4) (SDS)(CSU)	2018	3.18	0.79-9.1	N/A	µg/L=PPB
HALOACETIC ACIDS 9 (HAA9) (SDS) (UCMR4) (SDS)(CSU)	2018	36.4	14.5-57	N/A	µg/L=PPB

***More information about the contaminants that were included in UCMR monitoring can be found at: http://www.drinktap.org/water-info/whats-in-my-water/unregulated-contaminant-monitoring-rule-UCMR 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.

Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Unit of Measure	TT Minimum Ratio	MCLG	TT Violation?	Typical Sources
Total Organic Carbon Ratio (FVA)	Monthly -RAA	1.08	1-1.28	Ratio	1.00	0	No	Naturally present in the environment
Total Organic Carbon Ratio (SDS)(CSU)	Monthly -RAA	1.7	1-2.65	Ratio	1.00	0	No	Naturally present in the environment

Contaminant Name (collected in distribution system)	Monitoring Period	90th Percentile	Number of samples	Unit of Measure	90th Percentile AL	Sites Above Action Level	90^{th} Percentile AL Exceedance	Typical Sources
COPPER(SWD)	03/23/18 to 04/25/18	0.6	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD(SWD)	03/23/18 to 04/25/18	2.1	60	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
COPPER(SWD)	08/22/18 to 10/02/18	0.54	60	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD(SWD)	08/22/18 to 10/02/18	2.5	60	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
COPPER(CSU)	03/01/18 to 05/31/18	0.20	102	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD(CSU)	03/01/18 to 05/31/18	4.4	102	ppb	15	2	No	Corrosion of household plumbing systems; Erosion of natural deposits.
COPPER(CSU)	9/1/18 to 11/30/18	0.13	100	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.
LEAD(CSU)	9/1/18 to 11/30/18	3.6	100	ppb	15	0	No	Corrosion of household plumbing systems; Erosion of natural deposits.

Microorganism Contaminants Sampled in the Distribution System							
Contaminant Name	Time Period	Results	Sample Size	MCL	MCLG	MCL Violation	Typical Sources
Coliform (TCR) (CSU)	Nov 2016	1.39	216	More than 5.0% positive samples per period (If sample size is greater than or equal to 40) *OR* More than 1 positive sample per period (If sample size is less than 40)	0	No	Naturally present in the environment

Summary of Turbidity Sampled at Entry Point of the Distribution System					
Contaminant Name	Time Period	Results	TT requirement	TT Violation	Typical Sources
Turbidity (FVA)	2018	Highest single measurement 0.128 NTU	Maximum 1 NTU for any single Measurement	No	Soil Runoff
Turbidity(FVA)	Dec 2018	Lowest monthly Percentage of samples meeting TT requirement for our (FVA) technology: 100%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff
Turbidity (SDS)	June 2018	Highest single measurement 0.336 NTU	Maximum 1 NTU for any single Measurement	No	Soil Runoff
Turbidity(SDS)	Dec 2017	Lowest monthly Percentage of samples meeting TT requirement for our (FVA) technology: 99%	In any month, at least 95% of samples must be less than 0.3 NTU	No	Soil Runoff

Contaminant Name	Year	Average of Individual Samples	Range of Individual Samples (Lowest - Highest)	Unit of Measure	MCL	MCLG	MCL Violation?	Typical Sources
Hexachlorcyclopentadiene (FVA)	2018	0.03	0-0.06	ppb	50	50	No	Discharge from chemical factories
Hexachlorcyclopentadiene (SDS)	2017	n/a	0-0.07	ppb	50	50	No	Discharge from chemical factories
Di(2-ethylhexyl) phthalate (SDS)	2018	2.82	0-13	ppb	6	0	No	Discharge from rubber and chemical factories
Picloram (SDS)	2016	0.01	0-0.1	ppb	500	500	No	Herbicide runoff
Ethylbenzene(SDS)	2018	0.15	0-0.79	ppb	700	700	No	Discharge from petroleum factories;
Xylenes (SDS)	2018	1.82	0-7.9	ppb	10,000	10,000	No	Discharge from petroleum factories; Discharge from chemical factories

Cryptosporidium, E. coli and Raw Source Water (SDS) (FVA)

Contaminant Name	**Year**	**Range Detected**	**Units**	**MCL**	Typical Sources
Cryptosporidium (SDS)	2018	0	oocysts	0	Naturally present in the environment
E. Coli (SDS)	2018	0-2	MPN	N/A	Naturally present in the environment
Cryptosporidium (FVA)	2017	0	oocysts	0	Naturally present in the environment
E. Coli (FVA)	2017	0-10	MPN	N/A	Naturally present in the environment
Bromide (SDS)	2018	0-79.4	ppm	N/A	Naturally present in the environment
Organic Carbon, Total (SDS)	2018	1.31-2.17	ppm	N/A	Naturally present in the environment

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes cryptosporidium, the most commonly used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water and/or finished water. Current test methods do not allow us to determine if the organisms are dead or if they are capable of causing disease. 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					
Name	**Category**	**Time Period**	**Health Effects**	**Compliance Value**	**TT Level or MCL**
Xylenes, Total (CSU)	Failure to Monitor and or Report-Non-Health-Based	04/01/18 to 06/30/18	N/A	N/A	N/A
Ethylbenzene(CSU)	Failure to Monitor and or Report-Non-Health-Based	04/01/18 to 06/30/18	N/A	N/A	N/A
Cross Connection Rule (FVA)	Failure to meet Cross Connection/backflow requirements-Health-Based	2017 to 08/03/18	May pose a risk to public health	N/A	N/A
The Colorado Department Of Public Health and Environment requires Colorado Springs Utilities Ute Pass treatment plant monitor for the VOC's Total Xylene and Ethylbenzene quarterly. CSU collected required sample in May 2018. The sample was sent to a contract lab for analysis. Upon receipt of the results it was noticed that the lab had not analyzed for all the required VOC's including Xylene and Ethylbenzene. Another sample was collected and sent off for analysis in the beginning of June 2018.Results from the sampling event were received by CSU on July 11th, 2018, which was past the required deadline resulting in a violation of timely reporting for Ethylbenzene. Also upon receipt of this report, it was discovered that there was a quality control failure on Xylenes which invalided the sample. CSU was not notified of this failure until the monitoring period had ended and was unable to recollect the sample which is a violation of a drinking water monitoring requirement. CSU collected and analyzed the samples and were back in compliance for the 3rd quarter.					
FVA is a drinking wholesale supplier to the SWD. State drinking water regulations require that all public water systems, such as FVA, test a percentage of the backflow prevention devices located within their system annually. In March of 2018, FVA identified 6 backflow devices within its system that were not tested as required in 2017. This means that FVA violated State drinking water regulations by failing to ensure that these 6 devices were tested in 2017. All 6 devices were tested on March 8, 2018 and passed the tests. Therefore, FVA is not aware of any uncontrolled cross connections to its water supply system. FVA provided the state with an updated Backflow Prevention Cross-Connection Program Plan that includes measures to avoid this type of violation in the future.					

Definitions

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

Maximum Contaminant Level (MCL): *The highest level of a contaminant that is in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.*

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 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.*

Health-Based*: A violation of either a MCL or TT*

Non-Health-Based*: A violation that is not a MCL or TT.*

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.*

Compliance Value**:** *Single or calculated value used to determine if regulatory contaminant level (e.g. MCL) is met. Examples of calculated values are the 90th Percentile, Running Annual Average (RAA) and Locational Running Annual Average (LRAA).*

Range (R): *Lowest value to the highest value.*

Sample Size : *Number or count of values (i.e. number of water samples collected).*

Average (x-bar)*: Typical value*

Formal Enforcement Action (No Abbreviation) *– 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.*

Variance and Exemptions (V/E) *– Department permission not to meet a MCL or treatment technique under certain conditions*

Gross Alpha (No Abbreviation) *– Gross alpha particle activity compliance value. It includes radium-226, but excludes radon 222, and uranium*

N/A: *Not applicable or NT: Not Tested*

ND: *Not detectable; a testing limit or below detection level (BDL).*

NTU (or Nephelometric Turbidity Units): *A measure of clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.*

pCi/L (picocuries per liter): *a measure of radioactivity in water.*

ppm (parts per million): milligrams per liter (mg/l). – *One part per million corresponds to one minute in two years or a single penny in $10,000.*

ppb (parts per billion): *micrograms per liter (ug/l). -One part per billion corresponds to one minute in 2,000 years, or a single penny in $10,000,000.*

ppt (parts per trillion): *nomogram per liter (ng/l). – One part per trillion corresponds to one second in nearly 3200 years or a single penny in $10,000,000,000,000.*

RAA (Running Annual Average): *An average of monitoring results for the previous 12 calendar months.*

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

Waiver: *State permission not to test for a specific contaminant.*

90th Percentile*: 90% of samples are equal to or less than the number in the chart.*

Violation : *Failure to meet a Colorado Primary Drinking Water Regulation.*

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.*

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.*

LT2: *Long Term 2 Enhanced Surface Water Treatment Rule*