

WIDEFIELD WSD 2017 Drinking Water Quality Report

For Calendar Year 2016

Public Water System ID: CO0121900

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

We are pleased to present to you this year's water quality report. Our constant goal is to provide you with a safe and dependable supply of drinking water. Please contact BRANDON BERNARD at 719-955-0548 with any questions or for public participation opportunities that may affect water quality.

General Information

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. 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:** viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants:** salts and metals, which 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.
- Radioactive contaminants:** can be naturally occurring or be the result of oil and gas production and mining activities.
- 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.

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 <http://wqcdcompliance.com/ccr>. The report is located under "Source Water Assessment Reports", and then "Assessment Report by County". Select EL PASO County and find 121900; WIDEFIELD WSD or by contacting BRANDON BERNARD at 719-955-0548. 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 are listed on the next page.

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

Our Water Sources

<u>Source</u>	<u>Source Type</u>	<u>Water Type</u>	<u>Potential Source(s) of Contamination</u>
W4 WELL	Well	Groundwater	Environment, Industry
W2 WELL	Well	Groundwater	Environment, Industry
W3 WELL	Well	Groundwater	Environment, Industry
WELL C1	Well	Groundwater	Environment, Industry
W7 WELL	Well	Groundwater	Environment, Industry
WELL E2	Well	Groundwater	Environment, Industry
WELL C3	Well	Groundwater	Environment, Industry
WELL C36	Well	Groundwater	Environment, Industry
JHW5R WELL	Well	Groundwater	Environment, Industry
JHW4R WELL	Well	Groundwater	Environment, Industry
W1 WELL	Well	Groundwater	Environment, Industry
PURCHASED FOUNTAIN VALLEY 121300 SW	Consecutive Connection	Surface Water	Soil runoff, erosion of natural deposits

Terms and Abbreviations

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **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 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 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.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **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.
- **Picocuries per liter (pCi/L)** – Measure of the radioactivity in water.
- **Nephelometric Turbidity Unit (NTU)** – Measure of the clarity or cloudiness of water. Turbidity in excess of 5 NTU is just noticeable to the typical person.
- **Compliance Value (No Abbreviation)** – 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).

- **Average (x-bar)** – Typical value.
- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
- **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.
- **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.
- **Not Applicable (N/A)** – Does not apply or not available.
- **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.

Detected Contaminants

WIDEFIELD WSD routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2016 unless otherwise noted. The State of Colorado requires us 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 our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

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.

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 <u>OR</u> 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
Chlorine	December, 2016	<u>Lowest period</u> percentage of samples meeting TT requirement: 100%	0	20	No	4.0 ppm

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 th Percentile	Sample Size	Unit of Measure	90 th Percentile AL	Sample Sites Above AL	90 th Percentile AL Exceedance	Typical Sources
Copper	08/05/2014 to 08/21/2014	0.32	30	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead		5	30	ppb	15	1	No	

Disinfection Byproducts Sampled in the Distribution System										
Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2016	23.17	1.8 to 45.6	16	ppb	60	N/A	20.8	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	54.24	7.52 to 98	16	ppb	80	N/A	48.9	No	Byproduct of drinking water disinfection

Radionuclides Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2014	1.31	0 to 2.63	2	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2014	0.05	0 to 0.1	2	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2014	12.5	11 to 14	2	ppb	30	0	No	Erosion of natural deposits

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2016	0.07	0.06 to 0.08	3	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2016	1.03	0 to 1.7	3	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Fluoride	2016	1.12	0.51 to 2	3	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2016	5.47	0.81 to 7.5	12	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Nitrate: <i>Nitrate in drinking water at levels above 10 ppm</i> 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.									

Volatile Organic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Tetrachloroethylene	2016	0.42	0 to 1.4	13	ppb	5	0	No	Discharge from factories and dry cleaners

Secondary Contaminants**						
**Secondary standards are <u>non-enforceable</u> 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	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2016	53.33	50 to 58	3	ppm	N/A
Total Dissolved Solids	2014	1105	1100 to 1110	2	ppm	500

Violations, Significant Deficiencies, Backflow/Cross-Connection, and Formal Enforcement Actions

No Violations or Formal Enforcement Actions

FOUNTAIN CITY OF 2017 Drinking Water Quality Report

For Calendar Year 2016

Public Water System ID: CO0121275

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Our Water Sources

<u>Source</u>	<u>Source Type</u>	<u>Water Type</u>	<u>Potential Source(s) of Contamination</u>
GOLDFIELD CC - RECEIVED FROM WIDFIELD	Consecutive Connection	Surface Water	N/A
RICE LANE CC - RECEIVED FROM WIDFIELD	Consecutive Connection	Surface Water	N/A
MESA RIDGE CC - RECEIVED FROM WIDFIELD	Consecutive Connection	Surface Water	Ray Nixon Road
PURCHSD FVA 121300 SW	Consecutive Connection	Surface Water	N/A
WELL NO 2 SOUTH PARK WELL	Well	Groundwater	South end of Park, 213 W. Alabama
WELL NO 3 SHOP WELL	Well	Groundwater	South Main St. and Missouri Ave; 120 E Missouri Ave
WELL NO 4 DALE ST	Well	Groundwater	Corner of Dale St/Linda Vista; 625 Dale St.

Detected Contaminants

FOUNTAIN CITY OF routinely monitors for contaminants in your drinking water according to Federal and State laws. The following table(s) show all detections found in the period of January 1 to December 31, 2016 unless otherwise noted. The State of Colorado requires us 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 our data, though representative, may be more than one year old. Violations and Formal Enforcement Actions, if any, are reported in the next section of this report.

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.

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
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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 <u>OR</u> 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
Chlorine	December, 2016	<u>Lowest period</u> percentage of samples meeting TT requirement: 100%	0	20	No	4.0 ppm

Lead and Copper Sampled in the Distribution System								
Contaminant Name	Time Period	90 th Percentile	Sample Size	Unit of Measure	90 th Percentile AL	Sample Sites Above AL	90 th Percentile AL Exceedance	Typical Sources
Copper	08/14/2016 to 08/23/2016	0.37	30	ppm	1.3	0	No	Corrosion of household plumbing systems; Erosion of natural deposits
Lead	08/14/2016 to 08/23/2016	6.2	30	ppb	15	1	No	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts Sampled in the Distribution System										
Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	Highest Compliance Value	MCL Violation	Typical Sources
Total Haloacetic Acids (HAA5)	2016	40.83	27.5 to 65	16	ppb	60	N/A	65	No	Byproduct of drinking water disinfection
Total Trihalomethanes (TTHM)	2016	62.11	37.1 to 87.7	16	ppb	80	N/A	87.7	No	Byproduct of drinking water disinfection

Radionuclides Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Gross Alpha	2014	4.28	2.8 to 7.8	4	pCi/L	15	0	No	Erosion of natural deposits
Combined Radium	2012	0.99	0.62 to 1.38	4	pCi/L	5	0	No	Erosion of natural deposits
Combined Uranium	2014	5.7	2.6 to 7.2	4	ppb	30	0	No	Erosion of natural deposits

Inorganic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Barium	2014	0.04	0.04 to 0.05	4	ppm	2	2	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chromium	2014	0.9	0 to 1.4	4	ppb	100	100	No	Discharge from steel and pulp mills; erosion of natural deposits
Fluoride	2014	1.83	1.6 to 2	4	ppm	4	4	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate	2016	2.17	1 to 3.3	3	ppm	10	10	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Selenium	2014	5.88	3.1 to 8.4	4	ppb	50	50	No	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines

Synthetic Organic Contaminants Sampled at the Entry Point to the Distribution System									
Contaminant Name	Year	Average	Range Low – High	Sample Size	Unit of Measure	MCL	MCLG	MCL Violation	Typical Sources
Oxamyl (Vydate)	2014	0.01	0 to 0.1	8	ppb	200	200	No	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Pentachlorophenol	2014	0.04	0 to 0.1	8	ppb	1	0	No	Discharge from wood preserving factories

Secondary Contaminants**						
**Secondary standards are <u>non-enforceable</u> 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	Year	Average	Range Low – High	Sample Size	Unit of Measure	Secondary Standard
Sodium	2014	113	92 to 120	4	ppm	N/A



Violations, Significant Deficiencies, Backflow/Cross-Connection, and Formal Enforcement Actions

Violations					
Name	Category	Time Period	Health Effects	Compliance Value	TT Level or MCL
DBP GROUP	MONITORING, ROUTINE (DBP), MAJOR - NON-HEALTH-BASED	10/01/2016 - 12/31/2016	N/A	N/A	N/A



Fountain Valley Authority (PWSID # CO0121300)

2016 Water Quality Report Information for:

City of Fountain (PWSID # CO0121275)

Colorado Springs Utilities (PWSID # CO0121150)

Security Water District (PWSID # CO0121775)

Stratmoor Hills Water District (PWSID # CO0121800)

Widefield Water District (PWSID # CO0121900)

WATER SOURCE INFORMATION

Fountain Valley Authority treats surface water received from the Fryingpan-Arkansas Project. The Fryingpan-Arkansas Project is a system of pipes and tunnels that collects water in the Hunter-Fryingpan Wilderness Area near Aspen. Waters collected from the system are diverted to the Arkansas River, near Buena Vista, and then flow approximately 150 miles downstream to Pueblo Reservoir. From Pueblo Reservoir, the water travels through a pipeline to the water treatment plant.

COLORADO SOURCE WATER ASSESSMENT AND PROTECTION

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 <http://wqcdcompliance.com/ccr>. The report is located under "Source Water Assessment Reports", and then "Assessment Report by County". Select EL PASO County and find 121300; Fountain Valley Authority or by contacting Laboratory Services at 719-668-4560. 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 are listed below.

Potential sources of contamination to our source water areas may come from:

- EPA Superfund 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 Mine Sites
- Concentrated Animal Feeding Operations
- Other Facilities
- Commercial/Industrial Transportation
- High-and-Low-Intensity Residential
- Urban Recreational Grasses
- Quarries/Strip Mines/Gravel Pits
- Agricultural Land (row crops, small grain, pasture/hay, orchards/vineyards, fallow and other)
- Forest
- Septic Systems
- Oil/Gas Wells
- Road Miles

Fountain Valley Authority is dedicated to protecting our source water and ensuring quality treated water is delivered to our customers. The results of the source water assessment are not a reflection of our treated water quality received at the system connections, but rather a rating of the susceptibility of contamination under the guidelines of the Colorado SWAP program.

POSSIBLE WATER 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, 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:

Contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operation and wildlife.
- Inorganic contaminants, such as salts and metals, which 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 that 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, which are by-products of industrial processes and petroleum production, and also may come from gas stations, urban stormwater 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.

Immunocompromised Persons Advisory

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. 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>.

FLUORIDE INFORMATION

Fluoride is a compound found naturally in many places, including soil, food, plants, animals and the human body. It is also found naturally in Fountain Valley Authority's water source. Fountain Valley Authority does not add additional fluoride to the treated water. Any fluoride in the treated water results from what occurs naturally in the source water.

LEAD INFORMATION

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>.

MICROBIOLOGICAL INFORMATION

Fountain Valley Authority performs a Microscopic Particulate Analysis (MPA) at its treatment plant. The MPA determines particulate removal, expressed as a log reduction, between the source water entering the filters and the treated water exiting the filters. For 2016, the log reduction for Fountain Valley Authority was 4.5, which can be equivalently expressed as 100%.

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. No cryptosporidia were

detected in the treated water distributed from our water treatment plant. Current test methods do not allow us to determine if the organisms found in the source water 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, immunocompromised people are at greater risk of developing the life-threatening illness. We encourage immunocompromised 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.

DEFINITIONS

- **Maximum Contaminant Level (MCL)** – The highest level of a contaminant allowed in drinking water.
- **Treatment Technique (TT)** – A required process intended to reduce the level of a contaminant in drinking water.
- **Health-Based** – A violation of either a MCL or TT.
- **Non-Health-Based** – A violation that is not a MCL or TT.
- **Action Level (AL)** – The concentration of a contaminant which, if exceeded, triggers treatment and other regulatory requirements.
- **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 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 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.
- **Violation (No Abbreviation)** – Failure to meet a Colorado Primary Drinking Water Regulation.
- **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.
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- **Compliance Value (No Abbreviation)** – 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).
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- **Range (R)** – Lowest value to the highest value.
- **Sample Size (n)** – Number or count of values (i.e. number of water samples collected).
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- **Not Applicable (N/A)** – Does not apply or not available.
- **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.

WANT MORE INFORMATION

For questions concerning this report, please call Laboratory Services at (719) 668-4560.

TABLE OF DETECTED CONTAMINANTS

Fountain Valley Authority is required to monitor for certain contaminants less than once a year because the concentration of the contaminants are not expected to vary significantly from year to year, or the drinking water system is not considered vulnerable to this type of contamination. Some of the data, though representative, may be more than one year old.

Fountain Valley Authority has been issued waivers for asbestos, cyanide, dioxin, glyphosate, nitrite and all unregulated inorganic contaminants. The table on the following page shows the results of our monitoring for the period of January 1 through December 31, 2016, unless otherwise noted.

Detected Contaminants Table

Fountain Valley Authority (PWSID CO0121300)

Monitored at the Treatment Plant (entry point to the transmission system)

Contaminant	MCL	MCLG	Units	Level Detected	MCL Violation	Sample Dates	Possible Source(s) of Contamination
Arsenic	10	0	ppb	1	No	April 2016	
Barium	2	2	ppm	0.0594	No	April 2016	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Chlorine¹	TT	N/A	ppm	0 samples above or below the level	No	Jan – Dec 2016	Water additive used to control microbes
Fluoride	4	4	ppm	0.43	No	April 2016	Erosion of natural deposits; discharge from fertilizer and aluminum factories
Hexachlorocyclopentadiene	50	50	ppb	ND - 0.06	No	April, July 2016	Discharge from chemical factories
Nickel	N/A	N/A	ppb	1.8	N/A	April 2016	Erosion of natural deposits; discharge from industries; discharge from refineries and steel mills
Nitrate (as Nitrogen)	10	10	ppm	0.43	No	April 2016	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radium, Combined 226, 228	5	0	pCi/L	0.1	No	Mar 2011	Erosion of natural deposits
Selenium	50	50	ppb	5.3	No	April 2016	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
Sodium	N/A	N/A	ppm	20.9	No	April 2016	Erosion of natural deposits
Total Organic Carbon (TOC)	TT minimum ratio = 1.00	N/A	N/A	0.86 – 1.46	Yes	Running Annual Average	Naturally present in the environment
Turbidity²	TT ≤0.3 in 95% of monthly samples	N/A	NTU	Highest turbidity 0.37 (Sept 2016) 100% of samples ≤0.3	No	Jan – Dec 2016	Soil Runoff
Uranium	30	0	ppb	1.1	No	Mar 2011	Erosion of natural deposits

¹Chlorine is monitored continuously at the water treatment plant. TT = no more than 4 hours with a sample below 0.2ppm

²Turbidity is a measure of the cloudiness of the water and has no known health effects. We monitor turbidity because it is a good indicator of the effectiveness of our filtration system. Compliance with the TT of 95% of samples ≤0.3NTU is calculated using combined filter effluent turbidity results taken 6 times per day at 1:00, 5:00 and 9:00 a.m. and p.m.

Long Term 2 Enhanced Surface Water Treatment Rule Monitoring

Monitored raw source water before it enters the Treatment Plants

Contaminant	Units	Range	MCL Violation	Sample Dates	Possible Source(s) of Contamination
Cryptosporidium	Oocysts/L	0 – 1	N/A	Jan – Dec 2016	Naturally occur in the environment
E. coli	MPN	0 - 8	N/A	Jan – Dec 2016	Naturally occur in the environment
Turbidity	NTU	0.45 – 2.7	N/A	Jan – Dec 2016	Soil Runoff

Violations, Significant Deficiencies, Backflow/Cross Connection, and Formal Enforcement Actions

Contaminant	Category	Time Period	Health Effects	Compliance Value	TT Level or MCL
Turbidity¹	Monitoring, Source (LT2), Major Non-health-based	05/04/2016 – 5/04/2016	N/A	N/A	N/A
E. coli	Monitoring, Source (LT2), Major Non-health-based	05/04/2016 – 5/04/2016	N/A	N/A	N/A
Cryptosporidium	Monitoring, Source (LT2), Major Non-health-based	05/04/2016 – 5/04/2016	N/A	N/A	N/A
Carbon, Total²	Inadequate DBP Precursor Removal – health-based	01/01/2016 – 03/31/2016	Total Organic Carbon (TOC) has no health effects. However, total organic carbon provides a medium for the formation of disinfection byproducts. These byproducts include trihalomethanes (THMs) and haloacetic acids (HAAs). Drinking water containing these byproducts in excess of the Maximum Containment Level (MCL) may lead to adverse health effects, liver or kidney problems, or nervous system effects, and may lead to an increased risk of getting cancer.	2.05 mg/L Treated water	2.0 mg/L Treated water

¹ Turbidity, E. coli and Cryptosporidium as part of the LT2 requirement were not collected on the specified date in the month of May, therefore, we were issued a Failure to Monitor Violation. Turbidity, E. coli, and Cryptosporidium were sampled later in the month on May 10th.

² Total Organic Carbon (TOC) increases in source water during periods of heavy rain fall and snow melt due to runoff entering our reservoirs and creeks. During 2015 and into 2016 we saw higher precipitation than average leading to increased levels of TOC. The Fountain Valley Authority Treatment Plant will be installing a ferric chloride system in July 2017. This system will aid in reducing the levels of TOC.