City of Fairfield
Public Works Department
1000 Webster Street
Fairfield, California 94533

Prsrt Std
US Postage
PAID
Fairfield CA
Permit 166

Consumer Confidence Report

2019 Annual Water Quality Report for City of Fairfield Water Customers

Water Quality Concerns

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. The City of Fairfield 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 two 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.

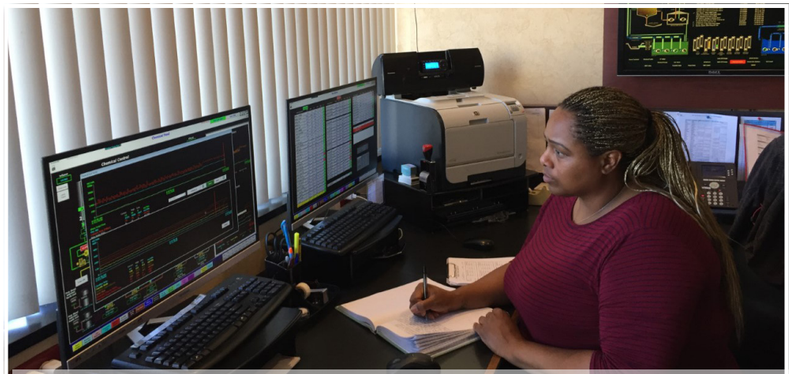
Triennially, the City of Fairfield collects samples at consumer taps to identify levels of lead in drinking water that may result from corrosion of lead-bearing components in the water system's distribution system or in household plumbing. These samples help assess the need for, or the effectiveness of, corrosion control treatment. Compliance was met with the latest round of testing in 2017 – lead was not detected within 90% of samples collected. The next round of testing will commence in 2020.

Security

The City of Fairfield has performed a comprehensive vulnerability assessment for the water system resources. If you should see items of concern or notice anything suspicious, please contact the City of Fairfield at 707.434.6100.

Sensitive Populations

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, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. U.S. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water hotline (1.800.426.4791).



The monitoring of water quality parameters are key to providing customers with safe and clean drinking water.

For More Information:

Questions regarding this report:
Jenell Pratt
707.437.5386

Water Billing 707.428.7346

Water Repairs 707.428.7415

Water Quality Concerns
707.437.5390

After Hours Water Repairs
707.428.7300

Free Water Conservation Audits
707.428.7630

EPA Safe Drinking Water Hotline
800.426.4791

Public input on drinking water issues is encouraged. You are welcome to attend a City Council meeting and have your voice heard. Meetings are held the 1st and 3rd Tuesday of each month at 6 p.m. in the Fairfield City Council Chamber at 1000 Webster Street.

Visual checks of plant processes ensure that the water treatment plant is running efficiently.

The City of Fairfield is pleased to present the 2019 Annual Water Quality Report. We remain committed to providing high-quality drinking water to you, our customers, as we continue to exceed strict State and Federal drinking water standards set by the California Division of Drinking Water and the U.S. Environmental Protection Agency. Thank you for allowing us to serve you.

COVID-19

The World Health Organization has stated that the, "presence of the COVID-19 virus has not been detected in drinking water supplies and based on current evidence, the risk to water supplies is low."[1] EPA and State drinking water regulations require disinfection processes for drinking water, which are extremely effective against viruses, including COVID-19. For more information visit: www.epa.gov/coronavirus

Drinking Water

In order to ensure that tap water is safe to drink, the US Environmental Protection Agency (USEPA) and the State Water Resources Control Board – Division of Drinking Water (State) prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State Board regulations also establish limits for contaminants in bottled water that provide the same protection for public health. This report includes details about where your tap water comes from, what it contains, and how it compares to State and USEPA standards.

The tables in this document list the drinking water contaminants detected for the period January 1 - December 31, 2019. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants change infrequently. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water hotline (1.800.426.4791).

[1] World Health Organization, 2020. Technical Brief. Water, sanitation, hygiene, and waste management for the COVID-19 virus. March

Source Water

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.

Fairfield's source water originates from Lake Berryessa and the Sacramento-San Joaquin Delta. Water is transported for treatment through the Putah South Canal and the North Bay Aqueduct. Treatment of source water is divided between two conventional water treatment plants, the Waterman Treatment Plant and the North Bay Regional Water Treatment Plant (NBR is jointly owned by the Cities of Fairfield and Vacaville).

Contaminants that may be present in source water before treatment include:

- Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals, can be "naturally-occurring" or result from urban storm water runoff, industrial or domestic waste water discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.
- Organic chemical contaminants, include synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, agricultural applications, and septic systems.
- Radioactive contaminants can occur naturally or be the result of oil and gas production and mining activities.

Treated Water

Table 1 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Substance (reporting units)	MCL	PHG (MCLG)	Drinking Water		Contaminant Sources
			Range	Average	
Aluminum (ppm)	1	0.6	< 0.02 – 0.10	0.07	Erosion of natural deposits; residue from some surface water treatment processes.
Fluoride (ppm)*	2	1	0.64 – 0.871	0.72	Erosion of natural deposits, water additive that promotes strong teeth.

*The City of Fairfield treats your water by adding fluoride to the naturally occurring level in order to help prevent dental caries in consumers. The fluoride levels in the treated water are maintained within a range of 0.6 and 1.2 ppm, as required by the California Department of Pubic Health regulations.

Table 2 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Substance (reporting units)	MCL	PHG (MCLG)	Drinking Water		Contaminant Sources
			Range	Average	
Aluminum (ppb)	200	NA	< 20 – 91	67	Erosion of natural deposits; residual from some surface water treatment processes.
Chloride (ppm)	500	NA	10.5 - 15.0	12.4	Runoff/leaching from natural deposits; seawater influence.
Odor – Threshold	3	NA	N/A	1.4	Naturally-occurring organic materials.
Specific Conductance (uS/cm)	1,600	NA	208 – 620	366	Substances that form ions when in water; seawater influence.
Sulfate (ppm)	500	NA	11.9 – 40.3	28.5	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (ppm)	1000	NA	157 – 248	208	Runoff/leaching from natural deposits.
Turbidity (Units)	5	NA	0.03 - 0.11	0.05	Soil runoff.

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Substance (reporting units)	MCL	PHG (MCLG)	Drinking Water		Contaminant Sources
			Range	Average	
Hardness (ppm)	NA	NA	64 – 220	130	It is the sum of cations present in the water, generally magnesium and calcium. They are usually naturally occurring.
Sodium (ppm)	NA	NA	12 – 31	19	Generally naturally occurring and refers to the salt present in the water.

Table 4 – STATE CONTAMINANTS WITH NOTIFICATION LEVELS - PFAS / PFOS

Substance (reporting units)	NL	PHG (MCLG)	Drinking Water	Health Effects
			Result	
Perfluorooctanoic Acid (ng/L))	5.1	NA	<2.0	Perfluorooctanoic acid exposures resulted in increased liver weight in laboratory animals.
Perfluorooctanesulfonic Acid (ng/L)	6.5	N/A	<2.0	Perfluorooctanesulfonic acid exposures resulted in immune suppression, specifically a decrease in antibody response to an exogenous antigen challenge.

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse la cuidad de Fairfield a 707.437.5387 para asistirlo en español.

Source Water Assessments

State law requires water utilities to conduct initial Source Water Assessments and Watershed Sanitary Surveys at least once every five years for the purpose of investigating potential contaminating activities, which may affect the source water(s). The assessment findings listed below do not necessarily mean that the source waters are affected by those activities at this time, but do highlight areas of potential concern and assist in developing necessary measures to protect the drinking water sources.

Lake Berryessa: A Source Water Assessment, completed in February 2003, shows that the most significant potential sources of contamination are illegal activities/unauthorized dumping, herbicide application, storm drain discharge points, and recreational use. The most recent sanitary survey was completed in 2019.

Sacramento-San Joaquin Delta: A Source Water Assessment, completed in May 2003, shows that the most significant potential sources of contamination are recreational use, urban and agricultural runoff, grazing animals, herbicide application, and seawater intrusion. The most recent sanitary survey was completed in 2018.

A copy of the complete assessments and associated vulnerability summaries can be obtained through the State Water Resources Control Board - Division of Drinking Water, San Francisco District Office, 850 Marina Bay Parkway, Building P 2nd floor, Richmond, CA 94804 or contacting Stefan Cajina at 510.620.3475.

Distribution System

Table 5 – DISINFECTION BYPRODUCTS PRECURSORS, DISINFECTION BYPRODUCTS AND DISINFECTANT RESIDUALS

Substance	Compliance Ratio		Range	Average	Contaminant Sources
DBP Precursors	More than or equal to 1.0		1.5 – 3.4	2.6	Various natural and man-made sources
Substance (reporting units)	**MCL**	**PHG (MCLG)**	**Range**	**Highest Running Annual Average**	**Contaminant Sources**
Trihalomethanes (ppb)	80	NA	18.0 – 77.0	53	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	NA	4.2 – 24.0	18	By-product of drinking water disinfection
Substance (reporting units)	**MRDL**	**MRDLG**	**Range**	**Running Annual Average**	**Contaminant Sources**
Chlorine (ppm)	4	4	< 0.10 – 1.6	0.68	Drinking water disinfectant added for treatment

Table 6– TURBIDITY AS A MEASURE OF FILTER PERFORMANCE

Substance (reporting units)	MCL	PHG (MCLG)	Entry Point to Distribution System		Contaminant Sources
			NBR	Waterman	
Turbidity (Units) *Measure of the cloudiness of the water.*	TT = 1.0	NA	0.13	0.14	Soil runoff
	Percentage of samples ≤ 0.3		100	100	

Table 7 – DETECTION OF COLIFORM BACTERIA

Substance	MCL	MCLG	Distribution System	Contaminant Sources
Total Coliform Bacteria	5 %	0	0	Naturally present in the environment
Fecal Coliform / *E. coli*	*	0	0	Human and animal fecal waste

**A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli.*

Table 8 – DETECTION OF LEAD AND COPPER IN CUSTOMER TAPS

Substance (reporting units)	AL	PHG	No. of Samples (Collected in 2017)	90th Percentile Detected	No. Sites exceeding AL	Contaminant Sources
Lead (ppb)	15	0.2	50	< 5.0	0	Plumbing corrosion; erosion of natural deposits
Copper (ppm)	1.3	0.3	50	0.140	0	Plumbing corrosion; erosion of natural deposits

ABBREVIATIONS AND DEFINITIONS

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

MCL - Maximum Contaminant Level: The highest level of a contaminant 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.

MCLG - Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. Set by U.S. Environmental Protection Agency.

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.

MRDLG - Maximum Residual Disinfectant Level Goal: 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.

NA - Not Applicable **ND - Not Detected** **NL - Notification Level**

NL - Notification Level

PHG - Public Health Goal: 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.

ppb - Parts per billion: or micrograms per liter (ug/L)

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

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

µS/cm - microsiemens per centimeter

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

Ang pag-uulat na ito ay naglalaman ng mahalagang impormasyon tungkol sa inyong inuming tubig. Mangyaring makipag-ugnayan sa City of Fairfield o tumawag sa 707.428.7496 para matulungan sa wikang Tagalog.