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		1.7 – 3.9	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	16.0 – 63.0	48	By-product of drinking water disinfection
Haloacetic Acids (ppb)	60	NA	3.5 – 13.0	12	By-product of drinking water disinfection
Substance (reporting units)	**MRDL**	**MRDLG**	**Range**	**Running Annual Average**	**Contaminant Sources**
Chlorine (ppm)	4	4	< 0.10 – 2.1	0.72	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	0.11	0.18	Soil runoff
	Percentage of samples ≤ 0.3		100	100	

Table 7 – DETECTION OF LEAD AND COPPER IN CUSTOMER TAPS

Substance (reporting units)	AL	PHG	No. of Samples (Collected in 2020)	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	0.121	0	Plumbing corrosion; erosion of natural deposits

Table 8a – DETECTION OF COLIFORM BACTERIA – Total Coliform Rule: January 1 – June 30

Substance	MCL	MCLG	Distribution System	Contaminant Sources
Total Coliform Bacteria	5 %	0	0.7	Naturally present in the environment
Fecal Coliform / *E. coli*	0	0	0	Human and animal fecal waste

The City of Fairfield collected 35 samples weekly: No more than 5.0% can be positive for Total Coliform, whereas any sample positive for E. coli or fecal coliform is an MCL violation.

Table 8b – DETECTION OF COLIFORM BACTERIA – Revised Total Coliform Rule: July 1 – December 31

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

Based upon population size, The City of Fairfield collects at least 100 samples monthly. No more than 5.0% can be positive for Total Coliform, whereas any sample positive for E. coli or fecal coliform is an MCL violation.

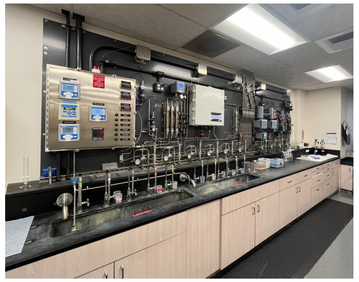
ABBREVIATIONS AND DEFINITIONS

AL – Action Level: The concentrations 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.
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 (µg/L.
Ppm – Parts per million: or milligrams per liter (mg/L).
TT – Treatment Technique: A required process intended to reduce 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.

Revised Total Coliform Rule

This Consumer Confidence Report (CCR) reflects changes in the drinking water regulatory requirements during 2021. These revisions add the requirements of the federal Revised Total Coliform Rule, effective since April 1, 2016, to the existing state Total Coliform Rule. The revised rule maintains the purpose to protect public health by ensuring the integrity of the drinking water distribution system and monitoring for the presence of microbials (i.e., total coliform and E. coli bacteria). The U.S. EPA anticipates greater public health protection as the rule requires water systems that are vulnerable to microbial contamination to identify and fix problems. Water systems that exceed a specified frequency of total coliform occurrences are required to conduct an assessment to determine if any sanitary defects exist. If found, these must be corrected by the water system. The state Revised Total Coliform Rule became effective July 1, 2021.

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 **https://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 distribution system or in household plumbing. Compliance was met with the latest round of testing. The next round of testing will commence in 2023.

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 (800) 426-4791).

Este informe contiene información muy importante sobre su agua para beber. Favor de comunicarse the City of Fairfield a 7(07) 437-5397 para asistirlo en español.
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.

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 Audit:	(707) 555-1111
EPA Safe Drinking Water Hotline:	(800) 426-4791

City of Fairfield, Public Works Department, 1000 Webster Street, Fairfield, CA

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.

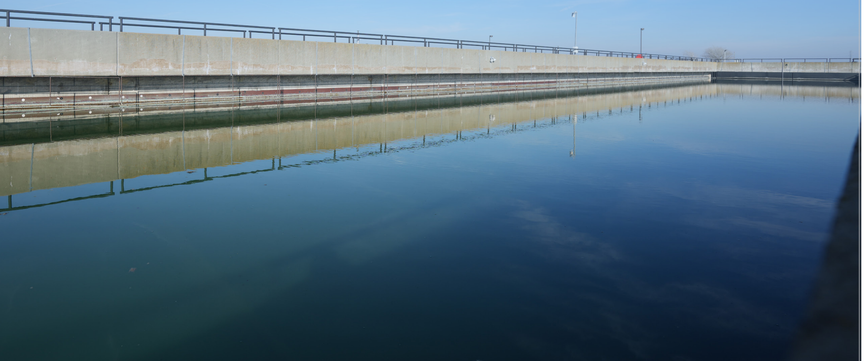
City of Fairfield
Consumer Confidence Report

The City of Fairfield is pleased to provide the 2021 Water Quality Report. We are committed to providing high-quality drinking water that meets or surpasses State and Federal health standards. This annual report includes important information and provides an educational opportunity to understand where your water comes from, what it contains, and the measures we take for the protection of public health.

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.

The tables in this document list the drinking water contaminants detected for the period January 1 - December 31, 2021, and show how they compare to State and USEPA standards. 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 (800) 426.4791).

> *"This annual report includes important information and provides an educational opportunity to understand where your water comes from, what it contains, and the measures we take for the protection of public health.*



Federally Required Information on Drinking 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.

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, 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 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, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural applications, and septic systems.
- Radioactive contaminants, that can be naturally-occurring 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	Drinking Water		Contaminant Sources
			Range	Average	
Aluminum (ppm)	1	0.6	< 0.02 – 0.09	0.06	Erosion of natural deposits; residue from some surface water treatment processes.
Fluoride (ppm)*	2	1	0.71 – 0.83	0.79	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. State regulations require the fluoride levels in the treated water be maintained within a range of 0.6 and 1.2 ppm.

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 – 87	67	Erosion of natural deposits; residual from some surface water treatment processes.
Chloride (ppm)	500	NA	9.5 – 14	11	Runoff/leaching from natural deposits; seawater influence.
Odor – Threshold	3	NA	N/A	1.4	Naturally-occurring organic materials.
Specific Conductance (µS/cm)	1600	NA	321 – 461	379	Substances that form ions when in water; seawater influence.
Sulfate (ppm)	500	NA	22 – 43	32	Runoff/leaching from natural deposits; industrial wastes.
Total Dissolved Solids (ppm)	1000	NA	162 – 262	220	Runoff/leaching from natural deposits.
Turbidity (Units)	5	NA	0.03 – 0.12	0.06	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	95 – 199	166	It is the sum of cations present in the water, generally magnesium and calcium. They are usually naturally occurring.
Sodium (ppm)	NA	NA	10 – 26	18	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 and cancer in laboratory animals.
Perfluorooctanesulfonic Acid (ng/L)	6.5	NA	< 2.0	Perfluorooctanesulfonic acid exposures resulted in immune suppression and cancer in laboratory animals.

Source Water

Fairfield's source water originates from Lake Berryessa and the Sacramento 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).

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).

Lake Berryessa: : A Source Water Assessment, completed in 2017, shows that the most significant potential sources of contamination are illegal activities, unauthorized dumping, herbicide application and agricultural drainage The most recent sanitary survey was completed in 2018.

Sacramento-San Joaquin Delta: A Source Water Assessment, completed in 2016, shows that the most significant potential sources of contamination are recreational use, unauthorized dumping, herbicide application and agricultural drainage. The most recent sanitary survey was completed in 2017.

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- (510) 620-3474.