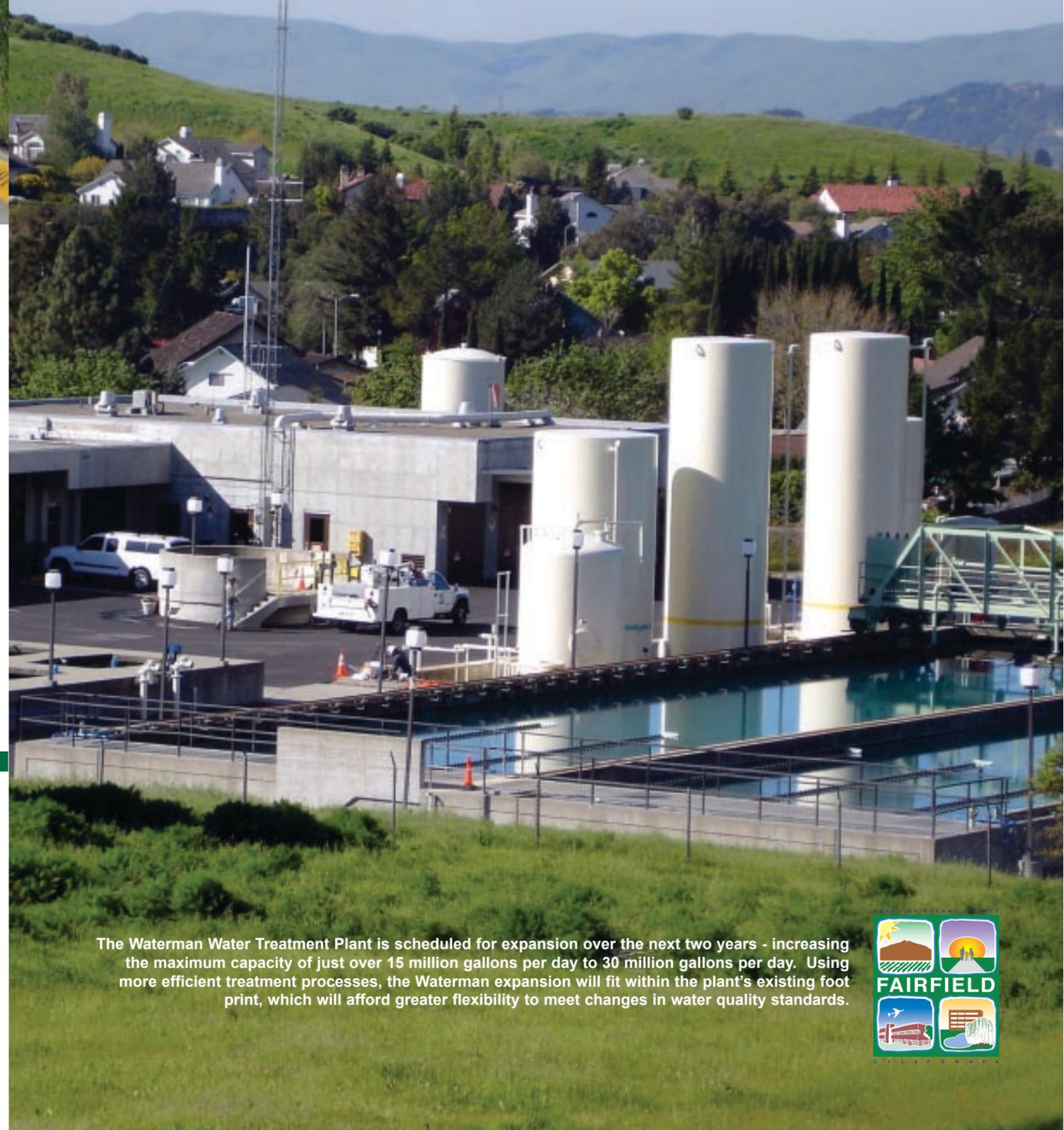




The Putah South Canal conveys raw water from Lake Berryessa to each of the City's water treatment plants.

City of Fairfield Water Quality Report



Water Quality Concerns

Sensitive Populations — Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons (such as people with HIV/AIDS, people who are undergoing chemotherapy and people who have undergone organ transplants), infants, and some elderly people can be particularly at risk for serious health impacts from infections. These people should seek advice about drinking water from their health care providers.

Lead & Copper — Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels may be higher in some homes in the community as a result of materials used in house plumbing. None of the samples Fairfield tested in 2002 exceeded the Action Levels for lead or copper. The next round of testing is in 2005.

Cryptosporidium — is a microbial pathogen found in surface water throughout the U.S. Although filtration removes Cryptosporidium, the commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source 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 spread through means other than drinking water.

Arsenic — The California Department of Health Services continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems. No arsenic has been detected in Fairfield's drinking water.

Security — The City of Fairfield has performed a comprehensive vulnerability assessment for the water system resources. If you should see any items of concern or notice anything suspicious, please contact the **City of Fairfield** at (707) 428-7594.

For more detailed information on water quality, visit our website: www.ci.fairfield.ca.us/water.htm

Free Home Water Audit Free Water Saving Devices

As part of efforts to extend water resources, Fairfield provides free watersaving devices to all the citizens in our community. In addition, the City can provide a qualified auditor to review the water use history of your home, check for leaks, and provide recommendations and information to help you save water.

Please visit the **City of Fairfield** at 1000 Webster Street, 3rd floor, or call 428-7487, Monday - Friday, 8 a.m. - 5 p.m.



For More Information Call

For questions regarding this report(707) 428-7595
 Billing Questions(707) 428-7346
 Water Repairs(707) 428-7415
 After Hours Water Emergencies(707) 428-7300
 EPA Safe Drinking Water Hotline.....(800) 426-4791
 Para información en Español(707) 428-7680x107

Este folleto contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para recibir información en Español comuníquese con Laura de Albidress al 707-428-7680 extensión 107.

Photography by George Pavlov and Gayle Fraser.

The Waterman Water Treatment Plant is scheduled for expansion over the next two years - increasing the maximum capacity of just over 15 million gallons per day to 30 million gallons per day. Using more efficient treatment processes, the Waterman expansion will fit within the plant's existing foot print, which will afford greater flexibility to meet changes in water quality standards.

Public input on drinking water issues is encouraged. You are welcome to attend a City Council meeting and have your voice heard. Council meetings are held the 1st & 3rd Tuesday of each month at 7 p.m. in the Fairfield City Council Chambers.



Drinking Water

In order to ensure that tap water is safe to drink, US EPA and the State of California prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. State regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

The following table lists the drinking water contaminants that were detected for the period of January 1 - December 31, 2004. The state allows reduced monitoring for some contaminants because the detected levels of these contaminants are very consistent from

All of Fairfield's testing results for 2004 were within state and federal water standards.

year to year. The presence of contaminants in the water does not necessarily indicate a health threat. All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. More information about contaminants and potential health effects can be obtained by calling the EPA's **Safe Drinking Water Hotline (1-800-426-4791)**. ■

TREATED WATER	Range	Average	MCL	PHG	Contaminant Sources		
PRIMARY STANDARDS							
Aluminum (ppb)	ND - 303	89	1000	600	Erosion of natural deposits and residue from some surface water treatment processes.		
Barium (ppb)	ND - 264	162	1000	2000	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits.		
Nitrate-N (ppb)	ND - 700	211	10,000	10,000	Runoff/leaching of fertilizers, leaching from septic tanks/sewers; erosion of natural deposits.		
Trihalomethanes (ppb)	19.6 - 49.1	33.6	80	NA	By-product of drinking water chlorination.		
Haloacetic Acids (ppb)	0.0 - 20.3	10.3	60	NA	By-product of drinking water chlorination.		
DBP Precursors	1.73 - 3.21	2.38			Various natural and man-made sources.		
DBP: Disinfection By-Products. Removal ratio must be above 1.0 for compliance.							
Max. Turbidity (NTU) (Percentage of samples ≤ 0.3)		0.29	TT = 1	NA	Soil runoff		
		100%					
			MRDL	MRDLG			
Chlorine Residual (ppm) * Running Annual Average		0.49*	4	4	Drinking water disinfectant added for treatment.		
Total Coliform Bacteria (%) ** Highest monthly value.		1.20%**	5%	0	Naturally present in environment.		
Fecal Coliform/E.coli *** A routine sample and a repeat sample are total coliform positive and one of these is also fecal coliform or E. coli positive.		0	0***	0	Human or animal fecal waste.		
			Control Range	Opimal Level			
Fluoride (ppm)	0.44 - 0.95	0.84	0.7 - 1.3	0.8	Water additive that promotes strong teeth.		
	90th percentile	Sites Above AL	Action Level	MCLG			
Lead (ppb)	ND	0	15	2	Plumbing corrosion; erosion of natural deposits.		
Copper (ppm)	0.054	0	13	0.17	Plumbing corrosion; erosion of natural deposits.		
Testing results are from 30 samples collected in 2002.							
SECONDARY STANDARDS							
Aluminum (ppb)	ND - 303	89	200	NA	Erosion of natural deposits and residue from some surface water treatment processes.		
Chloride (ppm)	8 - 19.5	13.8	500	NA	Runoff/leaching of natural deposits; Seawater influence.		
Sulfate (ppm)	22.2 - 65.0	43	500	NA	Runoff/leaching of natural deposits; Industrial Wastes.		
Total Dissolved Solids (ppm)	213 - 291	242	1000	NA	Runoff/leaching from natural deposits.		
Color (units)	ND - 4	1.6	15	NA	Naturally occurring organic materials.		
Odor (units)	1 - 1.4	1.3	3	NA	Naturally occurring organic materials.		
Silver (ppb)	ND - 67.8	16.5	100	NA	Industrial discharges.		
Specific Conductance (uohms)	311 - 425	361	1600	NA	Substances that form ions in water; Seawater Influence.		
Turbidity (NTU)	0.038 - 0.073	0.052	5	NA	Soil Runoff		
ADDITIONAL SUBSTANCES ANALYZED							
Boron (ppb)	140 - 240	195	(1000)	NA	Undetermined		
Sodium (ppm)	15.8 - 39.5	29.0	NA	NA	Generally found in ground and surface water.		
Vanadium (ppm)	3.90 - 5.0	4.33	(50)	NA	Undetermined		
Hardness (ppm)**** **** 1 grain/gal=17.1 ppm	83 - 160	140	NA	NA	Generally found in ground and surface water.		
SOURCE WATER							
	Sacramento Delta Range	Average	Lake Berryessa Range	Average	MCL	PHG	Contaminant Sources
PRIMARY STANDARDS							
Gross Alpha (pCi/L) Tested in 2002.	ND - 3.10	0.77	ND - 3.20	0.80	15	NA	Erosion of natural deposits.
ADDITIONAL SUBSTANCES ANALYZED							
Cryptosporidium (organisms/L)	ND - 0.1	ND	ND - ND	ND	TT	NA	Naturally present in the environment.

Source Water

Drinking water sources (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As source water travels over the surface of the land or through the ground, it can dissolve substances and pick up contaminants.

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).

Contaminants that may be present in source water before we treat it include:

Microbial contaminants, such as viruses and bacteria, that may result from sewage discharge, 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, which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses.

Vulnerability Assessment

Under State law, water utilities are required to check water supplies for possible contaminating activities which may put the source water at risk. This assessment does not mean that the water is necessarily affected by those activities at this time, but that the utility should be aware of these potential concerns and take necessary measures to protect the drinking water sources.

Lake Berryessa (completed September 2001): A Source Water Assessment has been completed and shows that the most significant potential sources of contamination are illegal activities/ unauthorized dumping, herbicide application, storm drain discharge points, and recreational use.



Drinking water is "settled" in a sedimentation basin at the Waterman Treatment Plant.

Organic chemical contaminants, including synthetic and volatile organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

Radioactive contaminants, can be naturally occurring or can be the result of oil and gas production and mining activities. ■

Sacramento Delta (completed December 2002): A Source Water Assessment has been completed and shows that the most significant potential sources of contamination are recreational use, urban & agricultural runoff, grazing animals, herbicide application, and seawater intrusion.

A copy of the assessments and associated vulnerability summaries can be obtained from the **California Department of Health Services, Drinking Water Field Operations Branch, at 2151 Berkeley Way, Rm 458, Berkeley, CA 94704** or by contacting **Cliff Bowen, District Engineer, California Department of Health Services at (510) 540-2173**. ■

Abbreviations

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

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

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 USEPA.

MRDL - Maximum Residual Disinfectant Level: The level of a disinfectant added for water treatment

that may not be exceeded at the consumer's tap. (Set at 4.0 mg/L as Cl₂ for chlorine disinfection.)

MRDLG - Maximum Residual Disinfectant Level Goal: The level of a disinfectant added for water treatment below which there is no known or expected risk to health. MRDLs are set by USEPA.

NA - Not Applicable

ND - Not Detected

NTU - Nephelometric Turbidity Units: The standard unit for turbidity measurements.

pCi/L - Pico Curies per Liter: A measure of radioactivity.

PDWS - Primary Drinking Water Standard: MCLs

and MRDLs for contaminants that affect health along with their monitoring, reporting, and treatment requirements.

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 California EPA.

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.