



*Sacramento-San Joaquin Delta with  
Mount Diablo in the distance*

## Your Drinking Water

### A REPORT ON THE QUALITY OF YOUR TAP WATER

From the Contra Costa Water District, the Cities of Antioch, Martinez and Pittsburg, and the Diablo Water District (Oakley).

#### To Our Customers:

To ensure that your tap water is clean and safe to drink, your water provider employs state-of-the-art treatment technology and carefully protects its sources of water. **In 2000, the treated drinking water delivered to your home met all drinking water standards set by the state and federal governments. For more information, see the Treated Water Table and Raw Water Tables on pages 4-7.**

This report presents a “snapshot” of the quality of your drinking water in 2000. It will provide you with answers to questions you may have about your tap water. It contains information about the quality of water delivered to customers by the Contra Costa Water District (CCWD), the cities of Antioch, Martinez and Pittsburg, and the Diablo Water District in Oakley. This report is required each year by the California Department of Health Services and the U.S. Environmental Protection Agency (EPA).

For more information about the tap water in your community, please call one of the following points of contact:

CCWD (Central Contra Costa): Jean Zacher – (925) 688-8156

City of Antioch: Lori Sarti – (925) 779-7024

City of Martinez: Alan Pellegrini – (925) 372-3587

City of Pittsburg: John Edwards – (925) 439-4026

Diablo Water District (Oakley): Danny Bowers – (925) 625-2112

## All Drinking Water Systems Are Required to Provide Consumers with the Following Information:

**All drinking water, including bottled water, in all communities 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.**

The sources of drinking water (both tap 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. It can also pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water before it is treated 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, which 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 byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems
- Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities

To ensure that tap water is safe to drink, the U.S. Environmental Protection Agency and the California Department of Health Services prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Limits are also established by the U.S. Food and Drug Administration for contaminants in bottled water that must provide the same protection for public health.

**Some people may be more vulnerable to contaminants in drinking water than the general population. People with compromised immune systems, such as cancer patients undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune systems 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.**

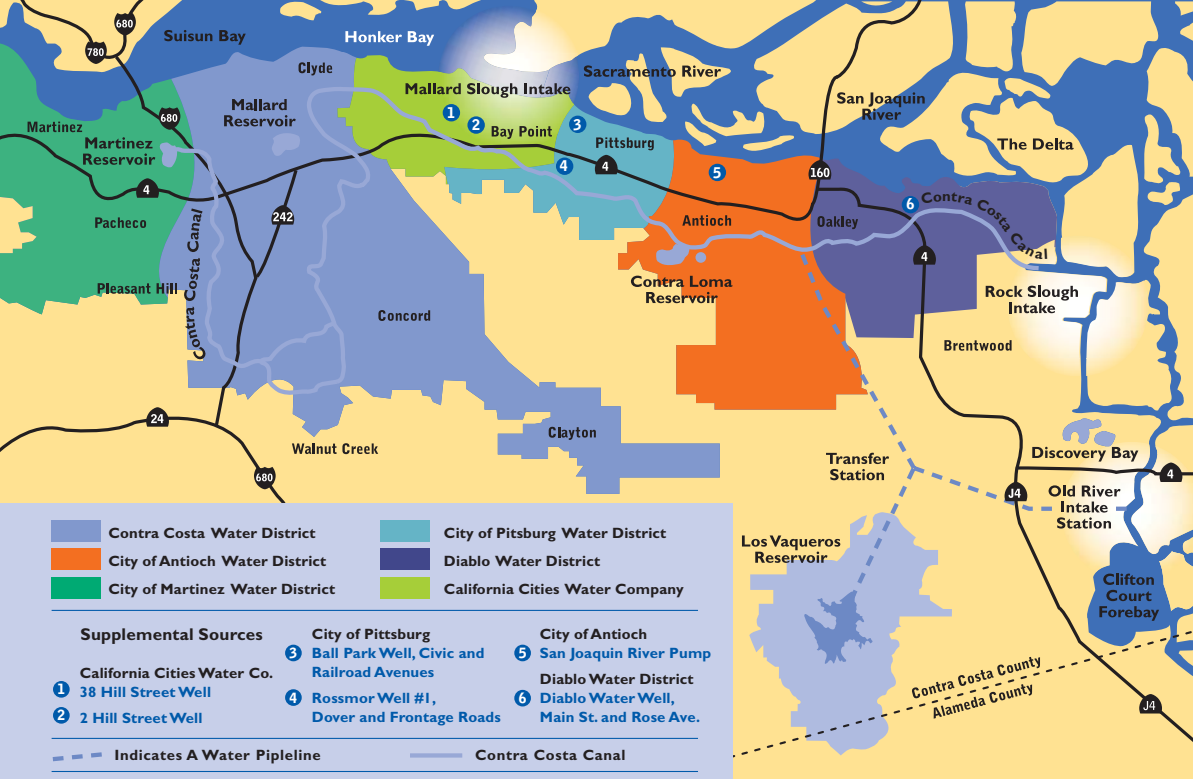


The Contra Costa Canal provides raw water to cities and water districts in East and Central Contra Costa County. Above, the City of Antioch pumps from the canal.

For more information about contaminants and potential health effects, or for EPA and Centers for Disease Control guidelines on appropriate means to lessen the risk of infection from *Cryptosporidium* and other microbial contaminants, call the EPA's Safe Drinking Water Hotline at: **1-800-426-4791**

### Help Keep Your Water Clean!

- **Never put anything but clean water into a gutter, open drainage ditch or down a storm drain. These eventually lead to the Delta.**
- **Use non-chemical pesticides and fertilizers.**
- **Always recycle used motor oil.**
- **Clean up after your pet, especially near waterways.**
- **Use non-toxic cleaning alternatives.**



An update to the current watershed sanitary survey is scheduled to be completed by May 2002, as required by statute. For more information about survey results or the survey process, call Larry McCollum at (925) 688-8127

## The Source of Your Water:

The primary source of water for 440,000 residents in Central and Eastern Contra Costa County is the surface water of the Sacramento-San Joaquin Delta. Originating from rivers within California's mountain ranges, the water flows into the Sacramento and San Joaquin rivers, eventually finding its way into the Delta. The Contra Costa Water District draws Delta water from Rock Slough near Oakley, Old River near the town of Discovery Bay, and Mallard Slough in Bay Point. The water is transported in the Contra Costa Canal, which starts at Rock Slough, then stretches west to Clyde, south to Walnut Creek and north to Martinez. CCWD can also store water in the Los Vaqueros Reservoir south of Brentwood, the Contra Loma Reservoir in Antioch, the Mallard Reservoir in Concord and the Martinez Reservoir in Martinez.

The Contra Costa Water District treats this water and provides it to about 230,000 residents in Clayton, Clyde, Concord, Pacheco, Port Costa, and parts of Pleasant Hill, Martinez and Walnut Creek. CCWD also sells untreated water (raw water) from the canal to the following agencies: the cities of Antioch, Martinez and Pittsburg, the California Cities Water Company (Bay Point), and the Diablo Water District (Oakley). These five agencies treat, distribute and bill for the water themselves. Most of these agencies, as well as CCWD, can draw groundwater

from wells or surface water from their own reservoirs or the San Joaquin River as supplemental supplies. (Please refer to the map for locations.)

A Watershed Sanitary Survey was completed by CCWD and the City of Antioch in May of 1997. This survey assessed the vulnerability of the Sacramento-San Joaquin Delta to potential forms of contamination. The survey identified that contamination could potentially come from industrial and municipal wastewater discharges, urban runoff, highway runoff, agricultural runoff, pesticides (insecticides/herbicides/fungicides), grazing animals, concentrated animal facilities, wild animals, mine runoff, recreational activities, traffic accidents/spills (including cars, trucks, trains, ships and aircraft), seawater intrusion, geologic hazards, and solid and hazardous waste disposal facilities.

The survey concluded that these potential sources of contamination are regularly mitigated by the natural flushing of the Delta, controls at the contamination sources or existing water treatment practices. After the completion of the Sanitary Survey, the Los Vaqueros Reservoir was completed and filled. This reservoir provides another means of mitigation because water can be drawn from it when water can not be taken directly from the Delta.

# Test Results for Treated and Raw Water

## Treated Water: Primary Drinking Water Standards

Constituent name	MCL	CITY OF ANTIPOCH		CITY OF PITTSBURG		CITY OF MARTINEZ		CCWD		DIABLO WATER DIST.		Likely Source of Contaminants
		Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	
Nitrate as NO3 (mg/L)	45	ND	ND-2	ND	ND	ND	ND	ND	ND	ND	ND-2.8	By-product of the disinfectant chloramine.
Fluoride (mg/L)	2	0.86	0.7-1.2	0.7	0.17-1.3	0.81	0.38-1.0	0.9	0.82-0.96	0.88	0.81-0.95	Primarily as a water additive that promotes strong teeth; result of erosion in natural geologic deposits.
Total Trihalomethanes(ug/L)	100	n/a	19-54	12	5.0-23	6	3.1 - 9.1	33	19-46	ND	ND-3.7	By-product of drinking water chlorination in reaction with naturally occurring organic matter
Total Coliform	>5% of monthly samples	0.07%	0-0.85%	0	0	0	0	0	0	0	0	Naturally present in the environment, but inactivated in the treatment process.
<b>Constituent name</b>	<b>MCL</b>	<b>PHG (MCLG)</b>	<b>Maximum Value</b>	<b>Lowest monthly % of samples that meet requirements</b>	<b>90% Percentile</b>	<b>Maximum Value</b>	<b>Lowest monthly % of samples that meet requirements</b>	<b>90% Percentile</b>	<b>Maximum Value</b>	<b>Lowest monthly % of samples that meet requirements</b>	<b>90% Percentile</b>	<b>Likely Source of Contaminants</b>
Turbidity (NTU)	TT=5 NTU	n/a	0.08	100%	100%	0.07	100%	100%	0.13	100%	100%	Suspended particulates from the Delta
<b>EPA Lead/Copper Rule</b>	<b>Action Limit</b>		<b># of sites tested/ # exceeding action limit</b>		<b>90% Percentile</b>	<b># of sites tested/ # exceeding action limit</b>		<b>90% Percentile</b>	<b># of sites tested/ # exceeding action limit</b>		<b>90% Percentile</b>	
Lead (ug/L)	15	n/a	34/1†	ND	ND	25/0	ND	ND	75/0	ND	46/0	Corrosion of brass plumbing fixtures and lead-containing solder in the home.
Copper (mg/L)	1.3	n/a	34/0	0.093	0.06	58/0	0.06	0.061	75/0	0.061	46/0	Corrosion of copper plumbing in the home.
Date of Monitoring				Sept '00	Aug. '00		Jun. '00	Jun. '00		Jun. '00	Jun. '00	

† No lead was detected in the drinking water supplied to customers. One home tested showed some lead from internal plumbing fixtures. Subsequent retesting showed non-detectable lead level.

## Treated Water: General Treated Water Quality Parameters\*

Constituent name	CITY OF ANTIPOCH		CITY OF PITTSBURG		CITY OF MARTINEZ		CCWD		DIABLO WATER DIST.	
	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range
Boron (ug/L)	8.7	8.0-9.1	NR	NR	NR	NR	146	100-173	150	100-210
pH	NR	NR	8.5	8.4-8.5	8.93	8.75-9.22	8.9	8.9-9.0	8.9	8.8-9.0
Bromide (mg/L)	NR	NR	NR	NR	NR	NR	0.075	ND-0.16	0.07	ND-0.13
Ammonia (mg/L)	NR	NR	0.3	0.05-0.45	NR	NR	0.33	0.25-0.41	0.33	0.31-0.37
Silica Dioxide (mg/L)	NR	NR	NR	NR	NR	NR	9.4	6.6-10.8	11	10-12.5
Alkalinity (mg/L)	76	50-115	90	74-106	82	61-116	77	63-90	91	77-106
Hardness (mg/L)*	88	62-132	97	81-103	89	54-128	87	67-102	91	66-104
Calcium (mg/L)	19	12.0-30	31	31	18	14 - 22	18	14-23	20.1	14.5-23
Magnesium (mg/L)	10	8.0-12	11	11	10.1	8.2 - 12	10.8	8.6-12.3	10.8	8.3-12
Potassium (mg/L)	2.0	2.0-3.0	2.0	2.0	2.1	1.4 - 2.8	2.6	2.0-3.1	2.4	2-2.7
Sodium (mg/L)	37	15-68	46	33-59	45	33 - 56	53	38-63	51	37-63
<b>Disinfection Byproducts</b>										
<b>Constituent name</b>	<b>Average</b>	<b>Range</b>	<b>Average</b>	<b>Range</b>	<b>Average</b>	<b>Range</b>	<b>Average</b>	<b>Range</b>	<b>Average</b>	<b>Range</b>
Bromate (ug/L)	NR	NR	NR	NR	4.6	ND - 15	ND	ND	23.4	ND-69
Halocetic acids (ug/L)	11	4.5-23.7	6.0	2.0-9.0	2.3	1.2 - 2.9	9.1	ND-14.2	2.6	ND-6.7

\*General Treated Water Quality Parameters are provided as a courtesy of your water provider because this information is often useful for household purposes. No MCL or PHG have been established for these constituents.

Hardness Classification:  
Soft: 0-50 mg/L  
Moderately Hard: 50-150 mg/L  
Hard: 150-300 mg/L  
Very Hard: 300+ mg/L

## Understanding the Tables:

In the following tables, you will find detailed information about the water that comes from your tap after it is treated (Treated Water) and before it is treated (Raw Water). Your water is regularly tested for more than 120 chemicals and other substances, as well as radioactivity. Only substances that were detected in the treated and raw water are listed in the tables.

### Definitions

**Public Health Goal (PHG):** 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.

**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 are set by the U.S. Environmental Protection Agency.

**PHGs and MCLGs are non-mandatory goals based solely on public health considerations using the most recent scientific**

research available. When these goals are set, the technological and economic feasibility of reaching these goals is not considered.

**Maximum Contaminant Level (MCL):** 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 or technologically feasible.

**Primary Drinking Water Standard (PDWS):** MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

**Secondary Drinking Water Standards:** Secondary MCLs are set for contaminants that affect the odor, taste or appearance of water.

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

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

### Water Quality Notifications

#### Cryptosporidium:

Some samples of raw water in the Contra Loma Reservoir and Contra Costa Canal contained cryptosporidium, however *cryptosporidium* was **not detected in the treated drinking water sent to your tap**. Cryptosporidium is a microbial pathogen. Current test methods do not identify whether cryptosporidium organisms are dead or capable of causing disease.

Although filtration removes cryptosporidium, filtration methods cannot guarantee 100 percent removal. To address cryptosporidium, the State of California has implemented a Cryptosporidium Action Plan, and your water provider is treating your drinking water to comply with this plan. In addition, the City of Martinez, Diablo Water District and Contra Costa Water District are treating water with ozone, which is potentially the most effective disinfectant available. Swallowing cryptosporidium may cause cryptosporidiosis, an abdominal infection characterized by nausea, diarrhea

and abdominal cramps. Most healthy individuals can overcome this disease within a few weeks. However, immunocompromised people are at greater risk of developing life-threatening illness. We encourage immunocompromised people to talk to their doctors about precautions they can take to avoid infection.

#### Radon:

Radon is a naturally occurring radioactive gas that you can't see, taste or smell. One of its sources is granite rock like that in the Sierra Nevada, the ultimate source of your water.

Radon is found throughout the United States. It can move up through the ground and into a home through cracks in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes and other household activities. Compared to radon entering the home through soil, radon entering the home through tap water is a small source. Radon is a known human carcinogen. If you are concerned about radon in your home, call the EPA's Radon Hotline at 800-SOS-RADON.

### Treated Water: Secondary Drinking Water Standards

Constituent name	MCL	PHG (MCLG)	CITY OF ANTIPOCH		CITY OF PITTSBURG		CITY OF MARTINEZ		CCWD		DIABLO WATER DIST.		MAJOR SOURCES
			Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	
Corrosivity (SI) (*) non-corrosive (†) needs to corrode		n/a	+0.23	-0.22 - +0.68	n/a	+0.85	+0.49	-0.4 - +0.9	+0.6	+0.42 - +0.71	+0.81	+0.7 - +0.86	Ionic balance influenced by source waters and treatment chemicals. Also affected by temperature and other factors.
Color (units)	15 units	n/a	ND	ND	2.6	2.5-2.7	ND	ND	ND	ND-5	ND	ND-5	Naturally occurring organic materials
Odor-threshold (units)	3 units	n/a	1	1.8-2.5	1.6	1.8-2.5	ND - 3	ND - 3	1	1	1	1	Naturally occurring organic materials
Chloride (mg/L)	500	n/a	55	22-102	73	52-94	48	23-75	53	34-70	44	35-52	Primarily seawater intrusion into the Delta
Sulfate (mg/L)	500	n/a	39	37-41	54	33-74	41	36-46	49	41-64	45	23-46	Natural and agricultural runoff from the Delta
Specific Conductance (umhos)	1600	n/a	415	292-551	n/a	380	n/a	390	433	332-505	415	315-450	Ionic concentration influenced by source waters and treatment chemicals
Total Dissolved Solids (mg/L)	1000	n/a	212	118-330	256	205-307	230	120-290	235	178-270	223	170-245	Dissolved organic and inorganic materials influenced by agricultural, municipal and industrial discharges as well as erosion and leaching of natural deposits

### CCWD Raw Water Sources: Primary Drinking Water Standards

	MCL	PHG (MCLG)	CONTRA LOMA		MALLARD SLOUGH		OLD RIVER		ROCK SLOUGH		LOS VAQUEROS		MAJOR SOURCES	
			Range	Average	Range	Average	Range	Average	Range	Average	Range	Average	Range	Average
Total Alpha (pCi/L)	15	0	ND-2.5	1.4	ND-2.4	ND	1.2	ND-2.6	1.3	1.8-4.2	2.6	Erosion of natural deposits		
Total Beta (pCi/L)	50	0	ND-6.0	ND	ND-39.2	15.7	ND	ND-4.5	ND	ND	ND	Decay of natural and man-made deposits		
Radon 222 (pCi/L)	n/a	n/a	ND-124	ND	ND	ND	ND	ND	ND	ND	ND	See text above		
Uranium (pCi/L)	20	0	ND-2.6	ND	ND-2.3	ND	ND-1.5	ND-2.2	ND	ND	ND	Erosion of natural deposits		
Combined Ra 226 & Ra 228 (pCi/L)	5	0	ND-1.6	1.1	ND-2.9	0.9	1.2	ND-3.4	1.1	ND-2.3	1.1	Erosion of natural deposits		

If you received water from any of the providers on pages 4 and 5, the CCWD table to the left applies to you because your provider receives raw water from CCWD. Please review this chart in addition to the results from your city or water district.

### Supplemental Raw Water Sources: Primary Drinking Water Standards

	MCL	PHG (MCLG)	DWD Oakley Well		CITY OF PITTSBURG Ballpark Well		CITY OF ANTIPOCH San Joaquin River Reservoir Storage		MAJOR SOURCES		
			Range	Average	Range	Average	Range	Average	Range	Average	
Total Alpha (pCi/L)	15	0	6.2-9.0*	8.1*	1.8	n/a	1.1	1.1	ND-2.6	ND	Erosion of natural deposits
Total Beta (pCi/L)	50	0	ND-7.6*	ND*	8	n/a	n/a	n/a	NR	NR	Decay of natural and man-made deposits
Radon 222 (pCi/L)	n/a	n/a	ND-206*	1.46*	210	n/a	n/a	n/a	NR	NR	See text above
Uranium (pCi/L)	n/a	0	4.1-6.4*	5.1*	ND	n/a	n/a	n/a	ND	ND	Erosion of natural deposits
Tritium (pCi/L)	20,000	n/a	ND-1160*	ND*	ND	n/a	n/a	n/a	NR	NR	Decay of natural and man-made deposits
Combined Ra 226 & Ra 228 (pCi/L)	5	0	ND-2.4*	1.8*	ND	n/a	n/a	n/a	NR	NR	Erosion of natural deposits

The table to the left reports results of testing on water used by individual providers as a supplement to the water they received from CCWD. The City of Martinez is not listed in the "Supplemental Raw Water Sources" table because it does not use supplemental water.

\*Data is from 1999, next due in 2002. The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.



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## How to Get Involved in the Quality of Your Water:

**CONTRA COSTA WATER DISTRICT:** The Board of Directors meets in regular session at 6:30 p.m. on the first and third Wednesday of each month. Meetings are held in the Board Room at the Contra Costa Water District Center, 1331 Concord Ave., Concord. For meeting agendas, contact the District Secretary at (925) 688-8024.

**CITY OF MARTINEZ:** The Martinez City Council meets in regular session at 7 p.m. on the first and third Wednesday of each month. Meetings are held in Council Chambers at 525 Henrietta Street, Martinez. For meeting agendas, contact the Deputy City Clerk at (925) 372-3512.

**CITY OF PITTSBURG:** The Pittsburg City Council meets in regular session at 7 p.m. on the first and third Mondays of each month. Meetings are held in Council Chambers at 65 Civic Drive, Pittsburg. For meeting agendas, call (925) 252-4850.

**CITY OF ANTIOCH:** The Antioch City Council meets in regular session at 7 p.m. on the second and fourth Tuesday of each month. Meetings are held in Council Chambers at Third and H Streets, Antioch. For meeting agendas, contact the City Clerk at (925) 779-7009.

**DIABLO WATER DISTRICT (OAKLEY):** The Board of Directors meets in regular session at 7:30 p.m. on the fourth Wednesday of each month. Meetings are held at 2107 Main Street, Oakley. For meeting agendas, contact the District at (925) 625-3798.



*The Los Vaqueros Reservoir improves water quality and provides an emergency supply of water for all water providers listed in this report.*

Este informe contiene información muy importante sobre su agua beber. Para una copia en español de este informe, llame a Franklin Mills al (925) 688-8144, de lunes a viernes de las 8 a.m. a las 4 p.m.

Mahalaga ang impormasyong ito.  
 Mangyaring ipasalin ito.

*This report contains important information about your drinking water. If you know someone who does not read English, please help them understand it. For a copy of this report in Spanish, call Franklin Mills at (925) 688-8144, Monday through Friday, from 8 a.m. to 4 p.m.*

**A Note to Bay Point Residents:** California Cities Water Company provides your annual report. Call 1-800-999-4033 for information.