

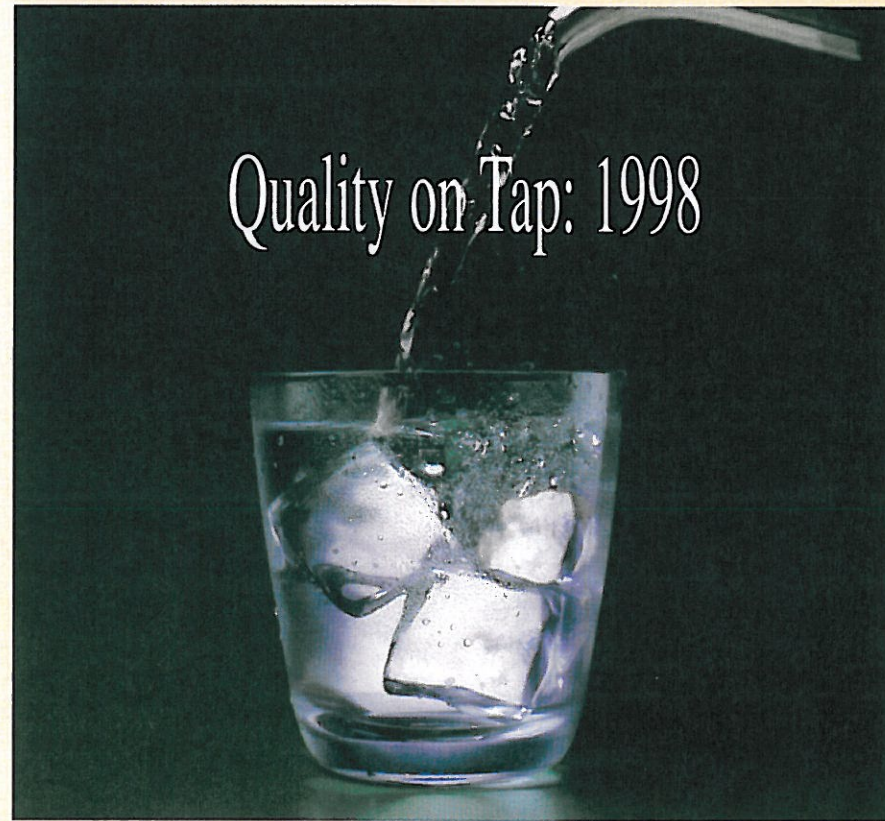
# Annual Water Quality Report

## What is Zone 7?

Created by area voters, Zone 7 is one of 10 active zones of the Alameda County Flood Control and Water Conservation District, a public agency established in 1949 to address water supply, drainage, and flood control problems in Alameda County.

Zone 7's service area encompasses all of eastern Alameda County, or about 425 square miles, including the Cities of Pleasanton, Livermore, and Dublin, and surrounding areas. Zone 7 is governed by a seven-member board of directors elected at large to four-year terms.

Although the area's 161,000 residents may not have direct contact with Zone 7, water piped to their homes is treated and wholesaled by Zone 7 to local retailers, including the Cities of Livermore and Pleasanton, the Dublin San Ramon Services District, and the California Water Service Company. Zone 7 also distributes untreated water to agriculture and golf courses.



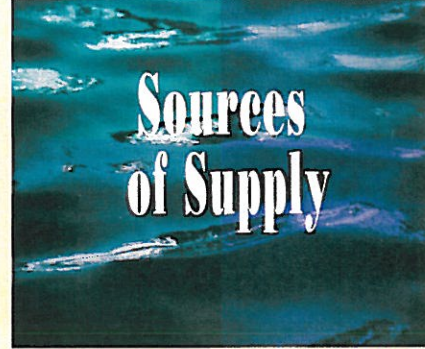
*This is an annual report on the quality of drinking water delivered by the Zone 7 Water Agency to its customers. We are proud to report that Zone 7 met or exceeded all federal and state standards for drinking water during calendar year 1998.*

**Y**ou may recall receiving similar reports in the past from Zone 7 or your local water retailer. Zone 7 has been providing an Annual Water Quality Report (AWQR) since 1990 in accordance with state regulatory requirements. The U.S. Environmental Protection Agency (USEPA) Region IX has agreed to allow California to meet the spirit of the federal law by permitting the AWQR to meet existing state regulations and guidelines, with utilities incorporating additional information mandated under new federal "Consumer Confidence Report" requirements into their AWQRs. This report's purpose is to help consumers make informed decisions regarding their drinking water by outlining where the water comes from, steps taken to monitor and ensure quality, levels of contaminants detected, and the importance of protecting water quality at the source.



*(Above) Part of the State Water Project, Lake Del Valle is a multi-purpose reservoir used for water supply and storage as well as flood control and recreation. The Arroyo Del Valle watershed above the lake, which is located southeast of Livermore, provides a significant source of water for Zone 7, channeling local runoff from winter storms into Lake Del Valle for conservation and later use.*

*(Left) The 4,500 gallon-per-minute Stoneridge Well provides important summertime peaking capacity and supply in times of drought.*



Monitoring and maintaining water quality in the Livermore-Amador Valley is a round-the-clock, 365-days-a-year job at Zone 7— and has been since 1962. Using state-of-the-art treatment and monitoring methods, highly qualified and well-trained personnel ensure that the water you and your family use meets or exceeds the most rigorous standards for safety and quality. These standards are set at the federal level by the Safe Drinking Water Act, originally enacted in 1974, amended in 1986, and reauthorized in 1996. Responsibility for enforcing this law rests with the State of California, which has adopted standards at least as, and in many cases, more stringent than the federal regulations. In the final analysis – is your water safe to drink? Absolutely.

We hope you'll find this report's expanded format user-friendly, and that it provides answers to questions you may have about the public drinking water supply. For further information, please contact Zone 7 directly at (925) 484-2600.

**Z**one 7's primary source of supply is surface water from the State Water Project, which originates north of the Sacramento–San Joaquin Delta in the Feather River watershed. State water is transported into the Valley via the South Bay Aqueduct.

A second source of surface water is the local supply conserved in Lake Del Valle. The area's third major water source is groundwater pumped from the Livermore-Amador Valley Groundwater Basin with its Bernal (west), Amador, and Mocho (east) sub-basins. The groundwater basin stores water against times of drought and helps meet peak summer demands.

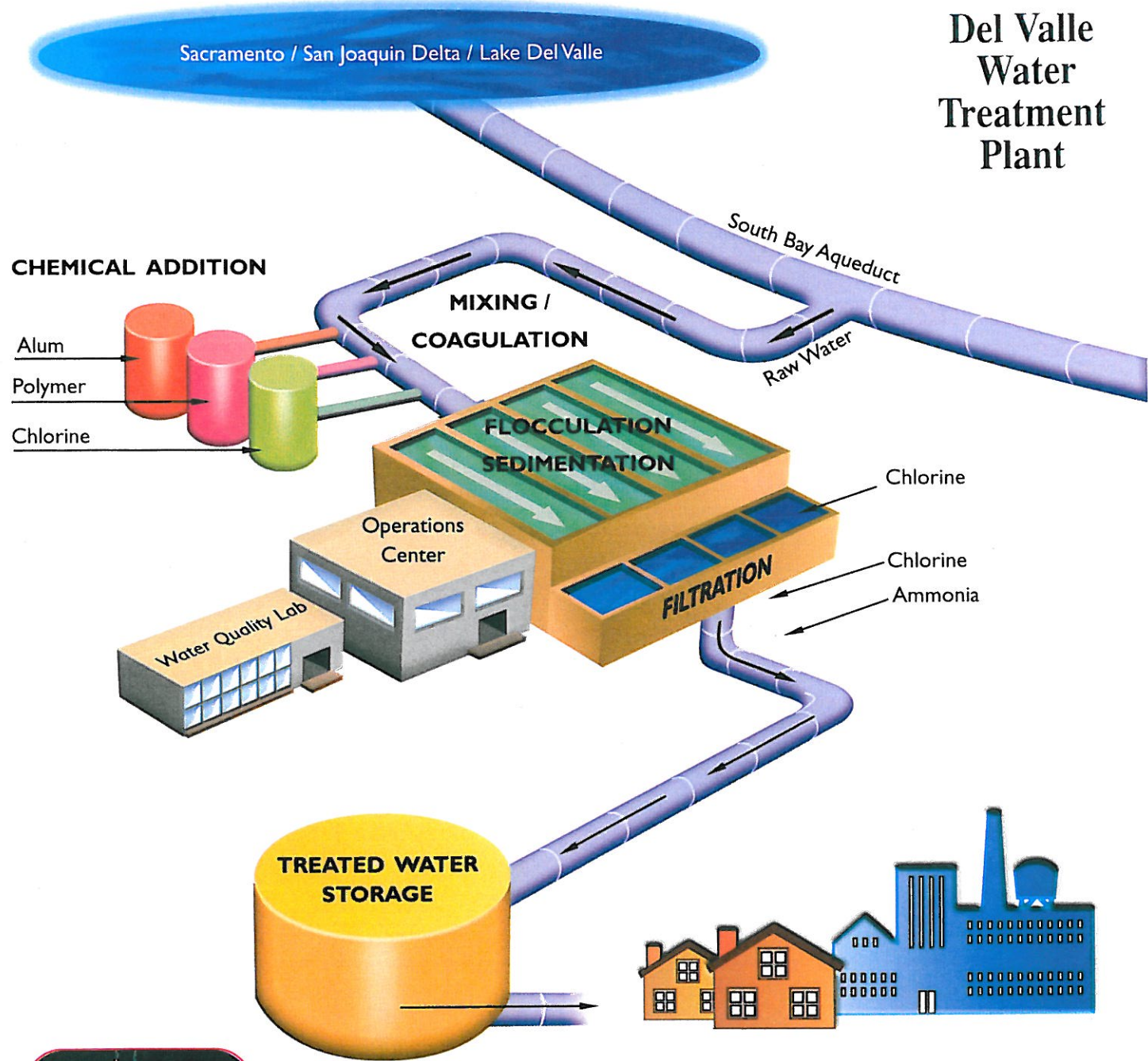
Surface water is treated at Zone 7's two water treatment plants, Del Valle and Patterson Pass (for more on the treatment process, see pages 4 and 5). Groundwater is disinfected to ensure its safety.

While much attention is directed toward providing excellent treatment to achieve high-quality drinking water, Zone 7 recognizes the importance of protecting source water from contamination. The Agency has long been involved in issues surrounding the Delta, including the ongoing CALFED process, which affect the quality of the raw water entering the two treatment plants. Protecting the groundwater

basin from contamination and increasing salinity is another key emphasis. These issues, coupled with increasingly stringent regulations and the Valley's continued growth, have placed water quality front and center in the arena of public concern.

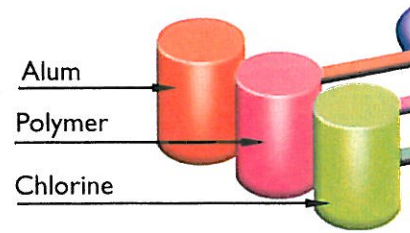
**Source Water Assessment**

Zone 7 has extensive groundwater monitoring and management programs to ensure that its local groundwater basin remains a potable and uncontaminated water source. In addition, Zone 7 has participated with other State Water Project contractors in conducting sanitary surveys (1991 and 1996) of its local and imported surface water sources. Another sanitary survey will be completed in 2001, and Zone 7 also will be performing additional source water assessment in accordance with requirements of the California Department of Health Services.



# Del Valle Water Treatment Plant

## CHEMICAL ADDITION



## MIXING / COAGULATION

## FLOCCULATION SEDIMENTATION

## FILTRATION

## TREATED WATER STORAGE



(Left) State-of-the-art equipment and highly trained, experienced personnel ensure Zone 7's treated water quality exceeds state and federal standards.

(Right) The filtration process "polishes" water and further removes particles and pathogens.

# The Water Treatment Process

**R**aw surface water entering Zone 7's Del Valle and Patterson Pass Water Treatment Plants goes through a number of steps to make it safe to drink. These processes have been approved by the California Department of Health Services and are strictly monitored by Zone 7 staff. Illustrated at left, they include:

**Mixing/coagulation** begins the process of turbidity removal. Turbidity is the fine suspended particulate matter that clouds water. Coagulants such as alum (aluminum

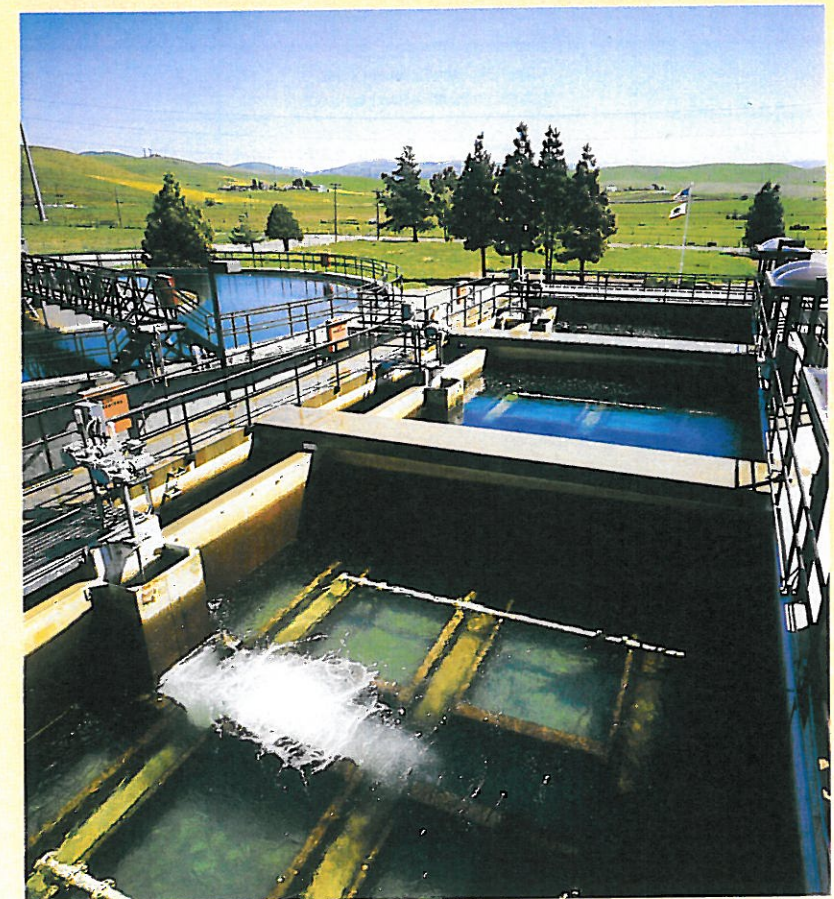
sulfate) and special polymers are rapidly mixed with the water, altering the suspended particles' electrical charges and causing them to come together into larger particles, or "floc."

In the **flocculation/sedimentation** step, the floc particles continue to collide, forming ever-heavier, settleable particles. The water moves slowly through a large basin so the floc particles can sink to the bottom for removal. Anywhere from 70-90 percent of suspended matter is removed by sedimentation. At the

Del Valle Water Treatment Plant, the floc particles are removed mid-way through the basin by a special "superpulsation" process.

The **filtration** process "polishes" the water, further removing particles and pathogens. The water passes through a dual-media filter made of sand and anthracite coal, which traps the particles. The filters are backwashed, or cleaned frequently to remove accumulated matter. Nearly 100 percent of suspended matter is removed after the filtration process. Protozoan pathogens such as *Giardia* and *Cryptosporidium* are also removed during the filtration process.

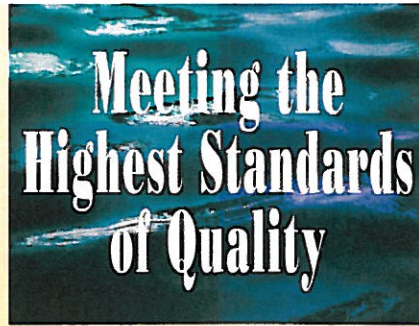
**Disinfection** is the key to destroying harmful bacteria, parasites, viruses, and other pathogens. Chlorine is used as the primary disinfectant, and chloramines (chlorine/ammonia combination) are added to maintain disinfection after the water leaves the treatment plant and enters the distribution system. Chloramines also help prevent the additional formation of disinfection byproducts.



Zone 7 is a proud member of the nationwide Partnership for Safe Water, aimed at optimizing water treatment.

**T**reating the water is only the beginning. Zone 7's American Water Works Association (AWWA)-certified and highly trained laboratory personnel continuously monitor for natural and man-made contaminants as mandated by the Safe Drinking Water Act. The Agency's well-equipped lab boasts the most advanced testing and detection equipment in the industry and has been accredited through the California Department of Health Services' Environmental Laboratory Accreditation Program. More than 95 percent of water quality analyses are performed in-house.

In 1997, Zone 7 installed particle



counters at both of its treatment plants to monitor filtration effectiveness. These state-of-the-art devices use laser technology and add yet another layer of safety to your drinking water.

### Definition of Terms

**Action level** The concentration of a contaminant which, if exceeded, triggers a treatment or other requirement which a water system must follow.

### Maximum contaminant level (MCL)

The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs and PHGs as is economically or technologically feasible.

### 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.

### Primary drinking water standard

Primary MCLs, specific treatment techniques adopted in lieu of primary

MCLs, and monitoring and reporting requirements for MCLs that are specified in regulations.

**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.

**Treatment technique** A required process intended to reduce the level of a contaminant in drinking water.

**Variance and exemptions** State or EPA permission to not meet an MCL or a treatment technique under certain conditions. A monitoring exemption

was granted for synthetic organic chemicals (SOCs) and cyanide for the 1996-1998 compliance period. These chemicals were not detected in the

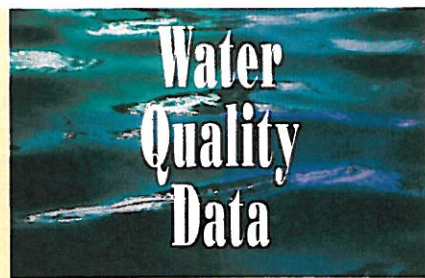
water during the first monitoring period (1993-1996) and Zone 7's water source has been deemed to be not vulnerable to these contaminants.

ZONE 7 SAMPLING FREQUENCY AND REQUIREMENTS		
<b>SURFACE WATER</b>		
<b>PARAMETER</b>	<b>DHS REQUIREMENT</b>	<b>ZONE 7</b>
Asbestos	Once every 9 years	Once every 9 years
Bacteriological	Weekly	Weekly
Inorganic Chemicals	Once per year	Monthly
VOCs	Once per year	Semiannually
SOCs	Waived	Semiannually*
Trihalomethanes	Quarterly	Quarterly
Radionuclides	Every four years	Every four years
<b>GROUNDWATER **</b>		
<b>PARAMETER</b>	<b>DHS REQUIREMENT</b>	<b>ZONE 7</b>
Inorganic Chemicals	Annually	Semiannually

\* In-house certified methods only  
\*\*Parameters with different requirements and monitoring from surface water

JANUARY-DECEMBER 1998 WATER QUALITY DATA - CONTAMINANTS DETECTED IN WATER SUPPLY												
PARAMETER	MCL	MCLG PHG*	PATTERSON PASS WATER TREATMENT PLANT		DEL VALLE WATER TREATMENT PLANT		MOCHO WELL FIELD		HOPYARD WELL FIELD		STONERIDGE WELL FIELD	
			RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE
<b>PRIMARY STANDARDS Mandatory Health-Related Standards, established by the State of California Department Of Health Services</b>												
TURBIDITY (NTU)	TT (a)	NA	0.04 - 0.11	0.08	0.04 - 0.10	0.07	0.05 - 0.12	0.08	0.06 - 0.65	0.30	0.05 - 0.27	0.16
Bacteriological Coliform Bacteria (Distribution System) % Samples Positive (PA)	< 5.0	0	Total Samples Collected = 959 % Coliform Positive Samples = 0.2									
Total Trihalomethanes Distribution System	mg/L 0.1	NA	0.029 - 0.057	0.046								
Inorganic Chemicals	mg/L	mg/L										
Aluminum	1	NA	ND - 0.17	ND	ND - 0.14	0.053	ND	ND	ND - 0.057	ND	ND	ND
Barium	1	2	ND	ND	ND	ND	0.21 - 0.37	0.28	0.12 - 0.30	0.20	0.33 - 0.33	0.33
Beryllium	0.004	0.004	ND	ND	ND	ND	ND - 0.001	ND	ND	ND	ND	ND
Chromium	0.05	0.1	ND	ND	ND	ND	0.010 - 0.016	0.013	ND - 0.012	ND	0.013 - 0.015	0.014
Fluoride	1.4-2.4	4	0.1 - 0.3	0.1	0.1 - 0.2	0.1	0.1 - 0.2	0.2	0.1 - 0.2	0.1	0.1 - 0.1	0.1
Mercury	0.002	0.002	ND	ND	ND	ND	ND	ND	ND - 0.001	ND	ND	ND
Nitrate (as NO3)	45	45*	1.33 - 7.88	3.37	0.66 - 5.18	2.04	10.3 - 14.0	11.9	6.64 - 12.4	9.1	11.9 - 13.2	12.5
Thallium	0.002	0.0005	ND	ND	ND	ND	ND	ND	ND	ND	ND - 0.001	ND
<b>SECONDARY STANDARDS - Aesthetic Standards.</b>												
Corrosivity (Units)	12 (b)		11.4 - 12.9	12.1	11.6 - 12.6	12.2	12.1 - 12.2	12.1	12.0 - 12.2	12.1	12.0 - 12.1	12.0
Conductivity (umhos/cm)	900 (c)		205 - 667	433	215 - 537	379	628 - 826	740	571 - 1119	787	574 - 660	617
Chloride (mg/L)	250 (c)		18 - 96	51	10 - 75	31	47 - 75	59	38 - 120	64	24 - 35	30
Sulfate (mg/L)	250 (c)		33 - 88	56	23 - 75	46	33 - 55	48	43 - 127	74	34 - 36	35
Total Dissolved Solids (mg/L)	500 (c)		132 - 397	248	119 - 294	216	382 - 464	430	312 - 710	456	352 - 364	358
<b>Additional Parameters - Included to assist consumers in making health or economic decisions, i.e. low sodium diet, water softening, etc.</b>												
Alkalinity (as CaCO3) (mg/L)	--		36 - 118	74	40 - 143	92	226 - 270	251	155 - 327	247	234 - 246	240
Hardness (as CaCO3) (mg/L)	--		42 - 125	83	39 - 150	102	266 - 341	290	166 - 438	291	230 - 249	240
Calcium (mg/L)	--		11 - 26	19	10 - 30	23	106 - 136	116	33 - 86	58	44 - 47	45
Magnesium (mg/L)	--		3 - 15	8	3 - 19	11	31 - 38	33	20 - 54	35	29 - 32	31
Potassium (mg/L)	--		1.0 - 3.4	2.0	0.9 - 3.3	1.5	1.1 - 1.5	1.4	1.2 - 2.2	1.6	1.5 - 1.6	1.6
Sodium (mg/L)	--		24 - 92	54	18 - 68	35	29 - 52	42	33 - 73	53	39 - 41	40
pH (Units)	--		8.4 - 9.0	8.6	8.4 - 8.8	8.6	7.6 - 7.7	7.6	7.3 - 7.9	7.6	7.6 - 7.6	7.6
Boron (mg/L)	--		ND - 0.7	0.3	ND - 0.5	0.2	0.2 - 0.4	0.3	0.2 - 0.5	0.3	0.2 - 0.2	0.2
Silica (mg/L)	--		7.8 - 18.2	12.4	8.5 - 25.2	12.7	24.2 - 25.7	24.9	18.8 - 25.2	22.6	25.7 - 26.7	26.2
Total Organic Carbon (mg/L)	--		1.4 - 4.2	2.5	1.5 - 3.2	2.4	ND - 1.7	0.6	ND - 1.6	1.1	ND - 1.1	ND

(a) Treatment technique, (b) Zone 7 strives to supply non-aggressive water (Corrosivity > 12) by pH adjustment, (c) DHS recommended limit  
Abbreviations/Units: MCL = Maximum Contaminant Level, PHG = Public Health Goal, MCLG = Maximum Contaminant Goal, NTU = Nephelometric Turbidity Unit, NA = Not Available  
PA = Presence/Absence, mg/L = Milligrams per liter or parts per million, ND = Monitored for but not detected, ND in range column indicate that more than one analyses performed



To simplify and streamline the numerous monitoring requirements, the California Department of Health Services initiated a nine-year compliance cycle beginning on January 1, 1993. Each compliance cycle consists of three three-year compliance periods. Year 1998 represents the third year of the second compliance period.

### Expected 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 untreated source water include:

**Microbial contaminants**, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

**Inorganic contaminants**, such as salts and metals, which can be naturally occurring or result from urban 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, which are by-products 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.

**Radon** is not currently regulated by

USEPA. In accordance with the 1996 amendments to the Safe Drinking Water Act, USEPA is planning a radon regulation proposal by August 1999 and promulgation by August 2000. The largest risk to public health from radon is from indoor air. The biggest contributor of radon to indoor air is the soil beneath

PRIMARY STANDARDS	
<b>ORGANIC CHEMICALS</b>	
Volatile Organic Chemicals (VOCs)	Synthetic Organic Chemicals (SOCs)**
Benzene	Alachlor*
Carbon Tetrachloride	Atrazine*
1,2-Dichlorobenzene	Bentazon
1,4-Dichlorobenzene	Benzo(a)pyrene*
1,1-Dichloroethane	Carbofuran
1,2-Dichloroethane	Chlordane
1,1-Dichloroethylene	2,4-D
cis-1,2-Dichloroethylene	Dalapon
trans-1,2-Dichloroethylene	1,2-Dibromo-3-chloropropane*
Dichloromethane	Di(2-ethylhexyl)adipate*
1,2-Dichloropropane	Di(2-ethylhexyl)phthalate*
1,3-Dichloropropene	Dinoseb
Ethylbenzene	Diquat
Monochlorobenzene	Endothall
Styrene	Endrin
1,1,2,2-Tetrachloroethane	Ethylene Dibromide*
Tetrachloroethylene	Glyphosate
Toluene	Heptachlor
1,2,4-Trichlorobenzene	Heptachlor Epoxide
1,1,1-Trichloroethane	Hexachlorobenzene*
1,1,2-Trichloroethane	Hexachlorocyclopentadiene*
Trichloroethylene	Lindane*
Trichlorofluoromethane	Methoxychlor*
1,1,2-Trichloro-1,2,2-Trifluoroethane	Molinate*
Vinyl Chloride	Oxamyl
Xylenes	Pentachlorophenol
	Picloram
	Polychlorinated Biphenyls
	Simazine*
	Thiobencarb*
	Toxaphene
	2,3,7,8-TCDD (Dioxin)***
	2,4,5-TP (Silvex)
<b>RADIONUCLIDES****</b>	
Combined Radium-226 and Radium-228	Gross Alpha particle activity
Tritium, Strontium-90, Uranium	Gross Beta particle activity

None of the primary standards listed above were detected in Zone 7 water supply.

\* Zone 7 in-house monitoring

\*\* Although a monitoring waiver for SOCs was granted by DHS during 2nd compliance period (1996 - 1998), complete monitoring conducted in 1996.

\*\*\* Latest monitoring conducted in 1993.

\*\*\*\* Latest monitoring conducted in 1996.

the house, and to a lesser extent, groundwater and certain types of building materials. Zone 7's 1996 monitoring for radon from its groundwater wellfields showed levels from 120 to 390 pCi/L.

### Major Sources for Detected Contaminants

**Aluminum** Erosion from natural deposits; from alum use as a coagulant.

**Barium** Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits.

**Beryllium** Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries.

**Chromium** Discharge from steel and pulp mills; erosion of natural deposits.

**Fluoride** Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories.

**Mercury** (inorganic) Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland.

**Nitrate** Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits.

**Thallium** Leaching from ore-processing sites; discharge from electronics, glass, and pharmaceutical factories.

**Turbidity** Soil runoff.

*One part per billion (ppb) is equivalent to a single inch in twice the diameter of the earth.*

INFORMATION COLLECTION RULE (ICR) DISINFECTION BYPRODUCTS (DBPs)					
PARAMETER	MRL	PATTERSON PASS WATER TREATMENT PLANT		DEL VALLE WATER TREATMENT PLANT	
		RANGE	AVERAGE	RANGE	AVERAGE
	ppb	ppb	ppb	ppb	ppb
Monochloroacetic Acid	2.0	ND - 2.6	ND	ND	ND
Monobromoacetic Acid	1.0	ND - 1.3	ND	ND	ND
Dichloroacetic Acid	1.0	13.2 - 16.9	14.9	10.0 - 21.5	13.6
Trichloroacetic Acid	1.0	7.5 - 21.8	12.6	2.9 - 18.0	9.5
Bromochloroacetic Acid	1.0	2.4 - 14.2	7.7	2.5 - 10.6	4.8
Dibromoacetic Acid	1.0	ND - 7.2	3.3	ND - 5.7	1.4
Chloroform	1.0	14.1 - 31.4	21.9	11.1 - 39.2	23.0
Trichloroacetonitrile	0.50	ND	ND	ND	ND
Dichloroacetonitrile	0.50	3.38 - 4.53	3.78	1.93 - 4.02	3.4
Bromodichloromethane	1.0	11.1 - 32.4	19.6	10.2 - 18.2	12.6
1,1-Dichloro-2-propanone	0.50	1.12 - 1.47	1.35	1.14 - 1.60	1.33
Chloropicrin	0.50	0.61 - 0.98	0.82	0.52 - 1.76	0.90
Dibromochloromethane	1.0	1.3 - 31.0	13.0	1.0 - 14.4	5.3
Bromochloroacetonitrile	0.50	1.07 - 4.15	2.27	0.57 - 1.74	1.23
1,1,1-Trichloropropanone	0.50	ND - 1.09	0.64	ND - 1.44	0.88
Bromoform	1.0	ND - 6.8	3.0	ND - 4.2	1.0
Dibromoacetonitrile	0.50	ND - 2.91	1.33	ND - 1.43	0.54
Chloral hydrate	0.50	ND - 2.09	1.02	ND - 2.42	1.26
<b>ADDITIONAL ICR PARAMETERS</b>					
Total Organic Halides	50	110 - 220	155	115 - 175	145
Cyanogen chloride	0.50	4.64 - 7.40	6.02	3.13 - 4.20	3.51
Chlorate	20	NA	NA	70 - 134	94

MRL = Minimum Reporting Level

ppb = Parts per billion or micrograms per liter

ND = Not detected at or above MLR. ND in the range column indicate more than one analyses in 1998.

NA = Not Applicable

In July, 1997 Zone 7 initiated an 18-month data collection effort to comply with EPA's Information Collection Rule (ICR). This data will be used for future regulations. Monitoring requirements under the ICR include those for Cryptosporidium, Giardia, Viruses, Disinfectants/Disinfection Byproducts (D/DBPs), miscellaneous water quality parameters, and treatment plant operational data.

1998 DBP data from ICR monitoring is summarized above.

## FAQs

### Answers to some frequently asked questions about water quality:

**Q: What is MTBE...and is it in my drinking water?**

**A: MTBE (methyl tertiary butyl ether) was frequently in the headlines in 1998, either in connection with contamination from boating or jet skis into drinking water reservoirs or from leakage from underground fuel tanks into groundwater. MTBE is a colorless and flammable chemical (oxygenate) which is added to gasoline to reduce air pollution. Unfortunately, it is also a water pollutant that has been classified as a "probable human carcinogen."**

In February 1997, the State of California added MTBE to the list of chemicals that must be routinely monitored by water agencies. MTBE has not turned up in our own water supplies but it remains a real concern, prompting the Zone 7 Board of Directors to adopt a resolution recommending its replacement and to support SB 521, which called for an independent scientific assessment of the additive.

Zone 7's philosophy is to act *before* contamination occurs, not after. Our groundwater basin is irreplaceable, and contamination by MTBE from spills or underground storage tanks represents

a potential threat to a major source of the Valley's water supply.

**Q: Is *Cryptosporidium* a problem here?**

**A: Zone 7 monitors for *Cryptosporidium* but none has ever been detected in local water supplies. This microscopic parasite is not life-threatening in healthy adults but can be dangerous to people with compromised immune systems, such as those with AIDS or who are undergoing chemotherapy. It infects the intestinal tract and causes diarrhea.**

Because *Cryptosporidium* may enter raw water supplies from the feces of wildlife and cattle, you should never drink directly from streams, rivers, or lakes, even if the water is swift-running or appears clean. Another way to help prevent its spread is to wash your hands thoroughly with soap after gardening, changing diapers, handling or petting farm animals, using the toilet, or after any potential contact with human or animal feces.

**Q: Do I need a water softener?**

**A: It's strictly a matter of personal preference. Water softeners use an ion exchange resin and salt to remove "hardness" minerals (calcium and magnesium) from water. Highly mineralized water results in soap scum deposits in basins and tubs as well as spotty dishes and dull-looking laundry.**

Water softeners do not otherwise "treat" water or make it any safer, despite some sales pitches. And because these devices work by exchanging sodium ions for the hardness ions, the resulting water supply is higher in sodium.

Your tap water is primarily a blend of imported and local surface water, with groundwater taking up the slack in dry times and at the peak of summertime demand. It typically averages less than 300 ppm TDS (total dissolved solids, or dissolved minerals). Compared to other major sources of supply, such as the Colorado River (averaging 700 ppm TDS), the Valley's treated surface water is generally "soft" and low in dissolved minerals.

For a free copy of a *Consumer Reports* reprint on water softeners and other treatment devices, contact Zone 7.

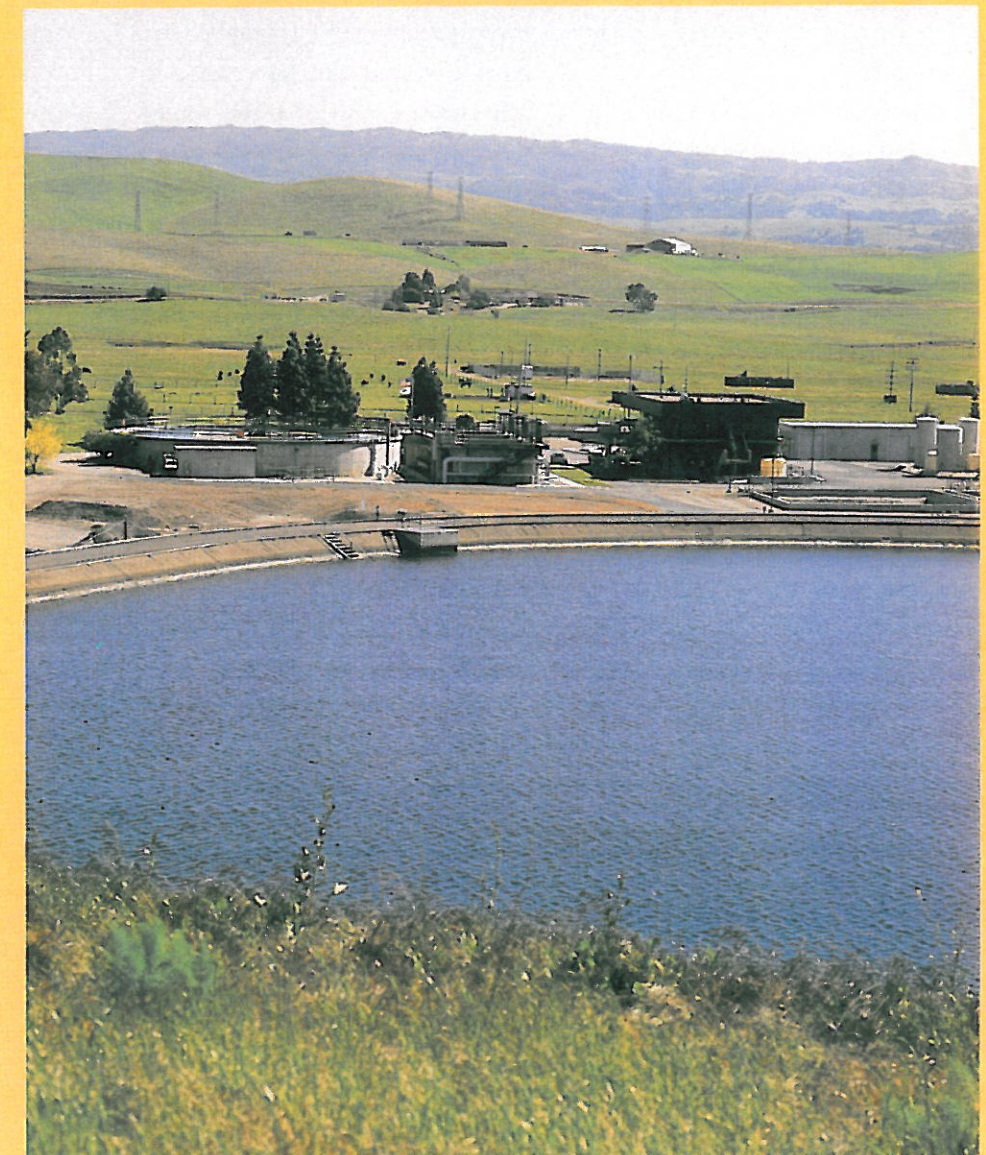
**Q: Should my family be drinking bottled water?**

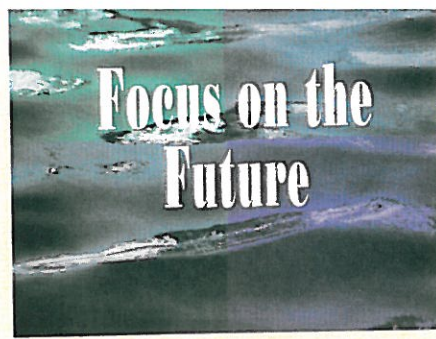
**A: Only if you prefer the taste – and don't mind the price. Tap water is required by law to meet numerous, rigorous standards, and water suppliers must test at frequent regular intervals for a multitude of contaminants (see tables on pages 6–9). Bottled water may taste different – some might think "better" – but it's no safer than tap water. In some**

cases, it's nothing more than bottled tap water that has undergone additional treatment to remove some of the harmless and often beneficial minerals, such as calcium.



(Above) Clarifier at the 12-million-gallon-per-day Patterson Pass Water Treatment Plant. (Below) The 30-million-gallon Patterson Reservoir provides storage and helps equalize influent water quality to the Patterson Pass Water Treatment Plant.





**T**hroughout its history, Zone 7 has consistently met or exceeded all water quality standards. But as new technologies produce ever-more-sensitive monitoring systems, the bar is continually raised to make treatment and detection methods even better – a never-ending process of optimization. At the same time, the Agency must keep an eye on the bottom line to ensure the cost-effectiveness of each improvement.

Partnering with other agencies is one way to optimize resources and share valuable knowledge. In 1998, Zone 7 continued its involvement in the Partnership for Safe Water, developed jointly by the U.S. Environmental Protection Agency, the American Water Works Association Research Foundation, the Association of State Drinking Water Administrators, several utilities, and other water organizations. Some 300 utilities nationwide participate in the Partnership. The intent of this phased, voluntary self-assessment and peer-review program is

to ensure high-quality drinking water by examining agencies' operations, maintenance, and management practices and determining ways they might be improved.

In addition to its involvement in the CALFED Bay-Delta process, the Agency and 15 other urban State Water Project contractors fund the Municipal Water Quality Investigations (MWQI) program to provide water quality information to help ensure the best available source water is pumped from the Delta.

In July 1997, Zone 7 began participation in the 18-month USEPA Information Collection Rule (ICR) monitoring program. Together with 300 other leading utilities nationwide, the Agency monitors surface sources for USEPA, which will use the information to evaluate and modify current regulations and establish new ones. The water quality laboratory, located at the Del Valle Water Treatment Plant, was approved by USEPA to perform the ICR testing and was further distin-

guished by being only one of 70 in the nation selected for a special ICR study begun in 1998.

### You Can Play a Role

Zone 7 has always encouraged public participation in decisions that may affect the quality of your drinking water. Regular meetings of the Board of Directors are open to the public and are held the third Wednesday of each month at 7 p.m. in the Board Room. Special meetings, also open to the public, are held as needed. Meeting agendas are posted online at Zone 7's Web site (address below) or are available by contacting Zone 7 at the phone number listed below.



#### Zone 7 WATER AGENCY

5997 Parkside Drive  
Pleasanton, California 94588-5127

Phone: (925) 484-2600  
Fax: (925) 462-3914

E-mail:  
zone7wfe@ix.netcom.com

#### Visit Zone 7 online at:

[www.zone7water.com](http://www.zone7water.com)  
(includes links to related Web sites)

**EPA SAFE DRINKING WATER  
HOTLINE**  
(800) 426-4791

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